ASBPE Magazine of the Year 2006

SLOW GO
Windows Vista won't mean a quick end to XP Pro. **PAGE 6**

RADAR FOR SYSTEM BUILDERS
Michael H. Hugos tells how to 'turn on your radar' to keep your IT projects from running aground. **PAGE 25**

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DECEMBER 4, 2006 ▪ VOL. 40 ▪ NO. 49 ▪ $5/COPY

Piracy, User Complaints Vex Symantec

BY LUCAS MEARIAN

Symantec Corp. last week said software piracy rings are costing it more than $10 million in lost revenue annually and are partly to blame for a slowdown in the processing of licenses for an upgrade of one of the company's key Veritas data backup products.

Symantec CIO David Thompson told *Computerworld* that the security and storage management vendor has been investigating large piracy rings in the U.S. and Canada for more than two years. After Symantec bought Veritas Software Corp. in July 2005, he said, it discovered that the same groups were also pirating Backup Exec, a Veritas tool designed for small and midsize users.

Thompson said that the licensing delays reported by some Backup Exec users are related to the piracy problems and a rollout of new ERP and online licensing systems at Symantec. The rollout was completed in early November, Thompson said, adding that the new systems were needed to ensure that customers aren't using pirated copies of Backup Exec and other Symantec products he wouldn't identify.

But several Symantec users said they're less concerned about the cause of the prob-

Symantec, page 51

MICHAEL MORGENSTERN

CLOSE ENCOUNTERS with Office 2007

Alien features in the new Office suite, such as the Office Button, the Ribbon and Open XML, could lead to more than a few calls to the help desk from befuddled users, reports Robert L. Mitchell. Our survey finds that about 30% of companies plan to upgrade in the next 18 months, while others are holding off because of worries about deployment headaches and costs. **Page 31**

IN DEPTH OPEN FILE FORMATS

How Massachusetts Battled Microsoft

A long trail of e-mails between former Massachusetts CIO Louis Gutierrez (right) and Microsoft's Alan Yates provides a behind-the-scenes look at the hardball politics that followed the state IT division's controversial decision to adopt the OpenDocument file format as a standard. Carol Sliwa reports. **PAGE 16**

IT Caught Off Guard by Flu Pandemic Warning

Call to make quarantine preparations a priority is 'eye-opener' for execs

BY PATRICK THIBODEAU
LAS VEGAS

Gartner Inc. is recommending that businesses complete planning by the second quarter of next year for a possible avian influenza pandemic and in particular stock up on supplies that would be needed by data center workers who might be quarantined together.

Among the suggestions offered last week by Gartner analyst Ken McGee at the consulting firm's annual data center conference here: Store 42 gallons of water per data center employee — enough for a six-week quarantine — and don't forget about food, medical care, cooking facilities, sanitation and electricity.

In a quarantined environment, "you are not going anywhere," McGee said.

McGee's presentation caught the attention of John Stingl, chief technology officer at Russell Investment Group. During the session, Stingl said later, he sent a note on his handheld to his administrative assistant asking that a meeting about Russell Investment's pandemic-specific planning be arranged back at the company's Tacoma, Wash., office.

Stingl said the investment firm has a good disaster recovery and business continuity plan. But after hearing McGee's stark warning, Stingl said he wants to know more about the company's plans for a pan-

Pandemic, page 14

NEWSPAPER

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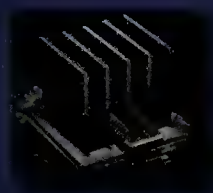

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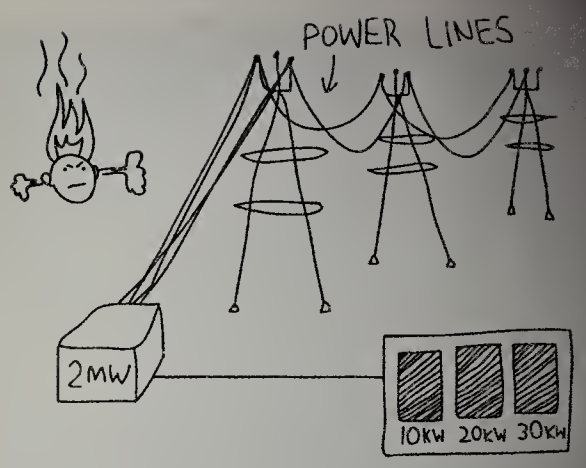

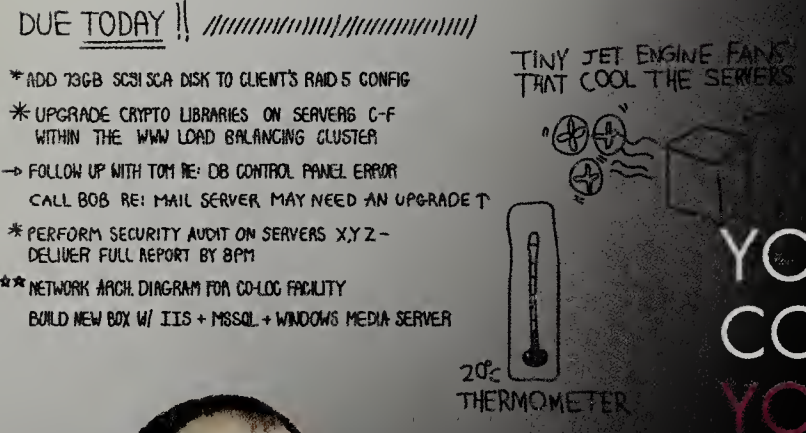

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12.04.06

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In the Management section: Today's information security professionals have followed diverse paths to their current roles, but hiring requirements are tightening as job responsibilities grow. **Page 39**

Columnist Mike Elgan calls the Treo 680 "the best smart phone in the world."

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NEWS

IN-DEPTH

Open Dialogue

Rankled by the Massachusetts IT division's adoption of the Open Document Format for Office Applications as a standard for state agencies, Microsoft backed legislation that could have stripped the IT unit of its decision-making authority over technology standards. But Bay State CIO LOUIS GUTIERREZ maintained on open-door policy with Microsoft – if not one of its lobbyists – and the two sides eventually defused the unlikely political battle over document file formats.

E-mails obtained by *Computerworld* provide a behind-the-scenes look at the battle. PAGE 16

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6 Touch-screen voting machines might get the boot in Ohio's Cuyahoga County.

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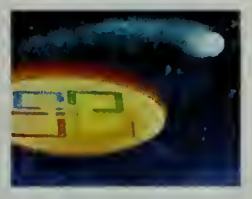
31 Close Encounters With Office 2007. A new user interface and a new file format in Microsoft's forthcoming Office 2007 suite have IT managers concerned about backward compatibility, user training and ROI. We asked 727 IT professionals about their migration plans, and 44% of them said they aren't planning to make the big move.



36 Security Manager's Journal: Stopping Data From Flying Off to Google. New desktop PCs at C.J. Kelly's state agency come with Google Desktop installed. Such a useful program couldn't be a problem, could it? Take a look at the Search Across Computers feature, which gives our columnist the creeps.

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42 IT Mentor: Talking the Walk. Tom Bugnitz says that if you want to speak the language of business, talk about the services IT provides to the business rather than the activities it executes to provide those services.

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44 Paul Glen usually looks at the human issues, not processes, when he's called in to rescue a struggling project.

52 Frankly Speaking: Frank Hayes thinks the real question facing the Pentagon is why it accepts any software that it can't adequately review and verify.

COOL STUFF 2006

The GO 510 GPS boasts real-time traffic updates and Bluetooth capability for less than $500.

Stumped on what to get the technology lovers on your list? This year's Cool Stuff Holiday Gift Guide points you to the best in flat-screen TVs, digital cameras, smart phones and lots more.

You'll find gifts for the gamer, the audiophile, the gadget buff and the technology fashionista. And, of course, something for yourself. Whether it's a digital musical player and headset or computer and cool accessories, you're sure to see something that catches your eye.

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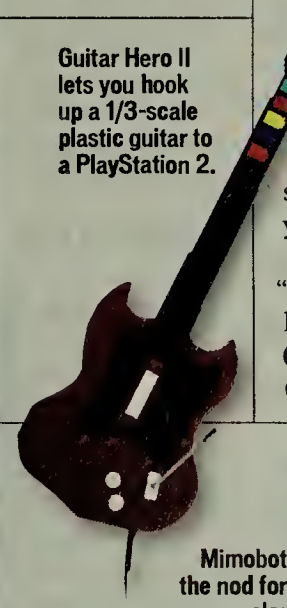

Guitar Hero II lets you hook up a 1/3-scale plastic guitar to a PlayStation 2.

Mimobots get the nod for best wacky USB drives.

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AT DEADLINE

Feds Warn Banks of Al-Qaeda Cyberthreat

The U.S. Computer Emergency Readiness Team last week warned banks and other financial institutions that al-Qaeda had threatened to attack their Web sites in December. But US-CERT, which is part of the U.S. Department of Homeland Security, has "no information to corroborate the threat," said a DHS spokeswoman. The alert, which was issued Thursday, was "really sent out of an abundance of caution," she added.

DOJ Probe Seeks Info From AMD, Nvidia

Advanced Micro Devices Inc. and Nvidia Corp. both said they have received subpoenas from the U.S. Department of Justice as part of an antitrust-related investigation of the market for graphics processors and cards. AMD said the DOJ hasn't made any allegations against it or graphics chip maker ATI Technologies Inc., which it bought in October. AMD and Nvidia each said they will cooperate with the investigation.

Business Objects Buys Web Tools Vendor

Business Objects SA said it has acquired Nsite Software Inc., a Sunnyvale, Calif.-based vendor of tools for developing software-as-a-service applications. Business Objects plans to use Nsite's technology to build customizable business intelligence applications that integrate multiple data sources and can be accessed via Web browsers. The purchase price wasn't disclosed.

Short Takes

The U.S. DEPARTMENT OF COMMERCE approved an agreement for VeriSign Inc. to continue to operate the .com domain for six more years after its current contract expires in late 2007. . . . The TEXAS DEPARTMENT OF INFORMATION RESOURCES awarded IBM a data center consolidation and management contract valued at $863 million over seven years.

Users Likely to Drag Feet on Vista Rollouts

New OS won't surpass Windows XP in business use until 2010, Gartner says

BY ERIC LAI

MICROSOFT CORP. no doubt wishes all companies were like Sasfin Bank Ltd. when it comes to installing Windows Vista.

Sasfin plans to start upgrading to Windows Vista by next March and have all 430 of its employees running the new operating system by the end of 2007. "We have a very spoiled user base," said Dawie Olivier, project manager for IT at the Johannesburg, South Africa-based commercial bank.

Olivier said last week that as part of Sasfin's normal three-year hardware-refresh cycle, he intends to bring in new PCs with Vista for one-third of the bank's users. He plans to retrofit the remaining computers with more memory and faster video cards so the systems can handle Vista's beefed-up requirements.

"It's not cost-effective for us to support multiple operating systems just because we're shy about cracking open a few PC cases," Olivier said.

But Sasfin is an exception to what analysts predict will be the rule: Despite Microsoft's splashy launch of Vista last week, the operating system will only slowly infiltrate businesses over the next four years.

Sticking With XP

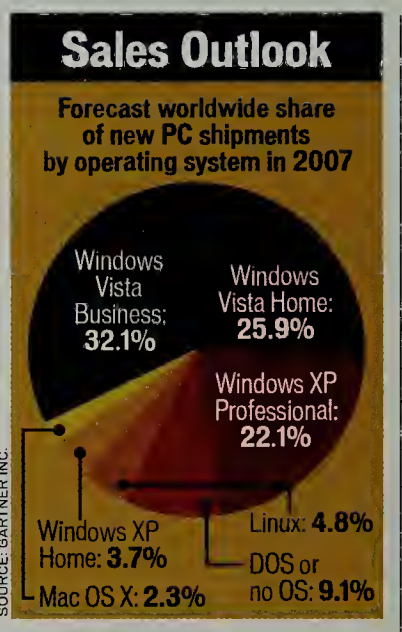
By the end of 2007, less than 5% of all PCs worldwide will sport a business-oriented version of Windows Vista, according to a forecast by Gartner Inc. In comparison, the consulting firm predicted, 47% will be running Windows XP Professional, and nearly 10% will still have Windows 2000 Professional, which will be seven years old by that point.

Gartner said it expects the percentage of PCs running a business flavor of Windows Vista to rise to 15% of the overall total by the end of 2008. But that will still be dwarfed by the 40% on Windows XP Pro, it said. And Gartner doesn't expect the number of business PCs running Vista to exceed the number with XP until 2010.

Microsoft is trying its best to nudge business customers into action, touting Vista's easier deployment and manageability and its stronger security.

But Gartner analyst Michael Silver said that likely won't persuade most companies to deviate from their normal routines — staggered cycles of three to five years for hardware replacement.

"More than half of our clients are telling us that they're only bringing in Vista as part of their regular hardware refresh," Silver said. Indeed, he expects many companies to exercise the "downgrade rights" in their Software Assurance contracts with Microsoft next year so they can still order new PCs with Windows XP Pro. As a result, Gartner expects 22% of all PCs sold in 2007 to come with that operating system (see chart).



About half of the PCs now used by North American businesses fall below Windows Vista's minimum system requirements, according to an automated survey of systems conducted from June through September by Softchoice Corp. And nearly eight of 10 business PCs would need additional memory to run Vista features such as the Aero 3-D "glass" interface, according to data the Toronto-based technology reseller gathered from more than 112,000 PCs at 472 companies and organizations.

To get all 750 of its Windows users onto Vista next year, FranklinCovey Co. plans to upgrade about two-thirds of its PCs to a minimum of 1GB of RAM and replace the rest of the systems, said Dan See, director of infrastructure at the time management products maker in Salt Lake City.

But FranklinCovey, which took part in Microsoft's Technology Adoption Program for Vista, has its limits. See has no plans to upgrade the video cards in existing PCs — and that might prevent users from taking advantage of Aero 3-D. "The expense of updating all of the video cards is prohibitive," he said.

Ohio County Considers Shift on E-voting Systems

BY MARC L. SONGINI

Officials in Ohio's Cuyahoga County are mulling the idea of scrapping a $17 million investment in touch-screen electronic voting systems and switching to optical-scan devices.

Cuyahoga County, which includes Cleveland, began using Diebold Election Systems' AccuVote TSx touch-screen machines in elections this year. But some members of the county's Board of Commissioners are concerned that those systems won't be able to handle a growing number of voters. In contrast, they say, optical-scan systems could accommodate increased numbers of voters in elections with heavy turnouts by allowing elections officials to add more booths for filling out paper ballots at polling places.

Hugh Shannon, government service coordination manager for the county, confirmed that a shift to optical-scan devices is being discussed. "We are gathering information towards that end," Shannon said. A decision will likely be made by the end of the year, he added.

Michael Vu, director of the Cuyahoga County Board of Elections, said that neither he nor any members of his committee had discussed the voting systems issue with the board of commissioners.

The use of Diebold's touch-screen systems in a May 2 primary in Cuyahoga County was the subject of a critical report issued last summer by the Election Science Institute. The San Francisco-based ESI is a nonprofit group that promotes the development of auditable election systems.

The report, which was based on a study funded by the county commissioners, stated that most voters surveyed by the ESI said they liked the e-voting systems and found them easier to use than the punch-ballot machines they replaced. But the report cited a series of operational and procedural issues, including problems with the paper audit trails generated by the Diebold systems.

It's noteworthy that the commission is now considering a change, said Steven Hertzberg, a project director at the ESI. "Diebold's rhetoric about the performance of its [systems] does not withstand objective scrutiny," he said.

Diebold, however, claims that its touch-screen systems work very well with large numbers of voters. David Bear, a spokesman for the Allen, Texas-based unit of Diebold Inc., said the problems in Cuyahoga County have tended to be the result of training problems and a lack of familiarity with the devices, not the technology itself.

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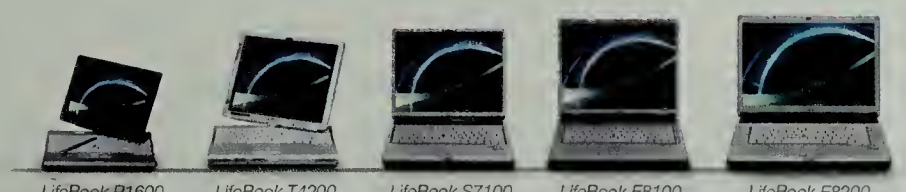

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GLOBAL DISPATCHES

An International IT News Digest

Panel Calls on SWIFT to Stop Giving Data to U.S.

LONDON

AN ADVISORY panel set up by the European Commission has found that SWIFT, a Belgium-based organization that runs a messaging service supporting financial transactions between banks, is violating European and Belgian data privacy laws by turning over information to U.S. authorities for use in terrorism investigations.

The panel, known as the Article 29 Working Group, said in a Nov. 23 report to the EC that the Society for Worldwide Interbank Financial Telecommunication SCRL should face sanctions if it doesn't stop the alleged violations.

SWIFT, a cooperative owned by about 8,000 financial institutions worldwide, keeps identical copies of its data at facilities in the U.S. and the Netherlands. The two facilities are each subject to local laws, SWIFT said in a statement denying that it is violating European laws.

A spokesman said SWIFT turns over specific subsets of data to the U.S. Department of the Treasury based on court-ordered requests and doesn't allow indiscriminate access. The organization negotiated with the U.S. government to monitor and audit the requests, he added.

■ JEREMY KIRK, IDG NEWS SERVICE

GLOBAL FACT

48%

Percentage of IT workers in the U.K. who have applied for a new job or registered with a recruitment agency in the past 12 months, based on a survey of more than 1,000 people.

SOURCE: LOUDHOUSE RESEARCH, LONDON

EMC Seeks Fix for Slow Sales Growth in Asia

SINGAPORE

AFTER SEVERAL quarters of lackluster financial performance in Asia, EMC Corp. is looking to get its regional operations back on track.

Steve Leonard, who took over as president of EMC's Asia-Pacific unit in April with a mandate to revive its business, said in an interview last week that the storage vendor needs "to do a better job of execution" in Asian countries.

In the third quarter, EMC's revenue in Asia grew by 6.9%, far lower than the rate of growth in other regions. Improving growth levels will take time, Leonard said, noting that EMC is taking a measured approach to resolving its operational issues. For example, EMC plans to work more closely with channel partners on sales and give users a single support contact for all its products.

■ SUMNER LEMON, IDG NEWS SERVICE

Microsoft Submits More Documents in Europe

BRUSSELS

MICROSOFT CORP. submitted a new batch of technical information about Windows to the European Commission's antitrust department last Thursday, meeting a deadline set by EC regulators one week earlier.

Microsoft, which faced daily fines of €3 million ($3.9 million U.S.) if it didn't produce the overdue documentation, called the submission "an important milestone" in its efforts to comply with the requirements of the EC's March 2004 ruling that the company had violated competition laws.

"Now the submission from Microsoft is worth testing," EC spokesman Jonathan Todd said. But if rivals looking to develop server software that can interoperate with Windows find that the documentation still isn't adequate, Microsoft could be hit with the €3 million daily fines backdated to the previous submission deadline in July, Todd said.

■ PAUL MELLER, IDG NEWS SERVICE

Compiled by Craig Stedman.

Briefly Noted

BT Group PLC last week said it has begun connecting customers in the U.K. to its new IP-based telecommunications network. The 21st Century Network will offer a mix of voice, data and video services over a single broadband connection at speeds of up to 24Mbit/sec. BT said it plans to switch more than 350,000 lines to the network by mid-2007.

■ JOHN BLAU, IDG NEWS SERVICE

Microsoft said it has signed an agreement to invest an undisclosed amount of money in a Beijing-based IT outsourcing operation set up by Tata Consultancy Services Ltd., finalizing a deal announced in June 2005. Microsoft will hold a 10% stake in the TCS China joint venture. Mumbai, India-based TCS owns 65%, and three China-based partners hold a combined 25%.

■ SUMNER LEMON, IDG NEWS SERVICE

Alcatel SA completed its acquisition of Lucent Technologies Inc. last Thursday and began operating under the name Alcatel-Lucent. The combined company will be based in Paris. But the networking vendor will be run by Lucent executive Patricia Russo, who was named CEO.

■ STEPHEN LAWSON, IDG NEWS SERVICE

Wall Street Cold to Rural Pa. Hot-Site Proposal

No takers yet in bid to turn Poconos region into a disaster recovery zone

BY SHARON FISHER

An attempt to entice New York-based financial services firms to set up business continuity facilities in nine counties in northeastern Pennsylvania has yet to attract any clients to what is optimistically being dubbed "Wall Street West."

The initiative is aimed at making the areas in and around the Pocono Mountains competitive with neighboring New Jersey as a location for disaster recovery sites and secondary data centers. Pennsylvania officials also hope companies will hire residents to be on-site IT workers, creating new job opportunities in an area that is in need of economic revitalization.

Last February, the U.S. Department of Labor gave the Bethlehem, Pa.-based nonprofit organization that is coordinating the Wall Street West efforts a three-year, $15 million grant to fund IT training programs. The group also expects more than $10 million from the state government to help it develop a fiber-optic infrastructure over the next 15 to 18 months, said Jim Ryan, director of outreach and network development for Wall Street West.

The Penn Regional Business Center, a planned mixed-use site in Monroe County, has latched on to the Wall Street West concept. Larry Simon, the business center's developer, hosted an event on Oct. 10 that was attended by 24 representatives from 17 Wall Street firms, including Morgan Stanley, Merrill Lynch & Co. and Prudential Financial Inc.

Not the Right Match

Attendees, some of whom asked not to be identified, said in general that the proposed project is interesting — but just not right for them.

For example, Steve White, vice president of information systems services at Insurance Services Office Inc. in Jersey City, N.J., said Simon is looking for anchor companies that need larger facilities than he does and that would keep those facilities fully staffed.

White, on the other hand, said he's considering setting up a lights-out data center by 2009 as a secondary IT location that he hopes would cost less to operate than he pays now for a contract to use a disaster recovery vendor's hot site.

At the event in October, Penn Regional officials talked about plans for high-speed trains that could make the trip from Manhattan in an hour, White said. He added that such a service is necessary because that trip typically takes nearly three hours by car.

Ralph Wonder, director of public affairs at Penn Regional, said the business center is working with Accenture Ltd. and BearingPoint Inc. to help identify potential clients and is talking with "a couple of very, very major firms" that he wouldn't identify.

"It's still quite a sell job in terms of making [companies] aware of the benefits of this area and [persuading them] to locate backup operations here," said Laura Eppler, a spokeswoman for Ben Franklin Technology Partners. The state-funded economic development organization's regional operation in northeastern Pennsylvania is assisting the Wall Street West group and administering the training grant.

A contract to build the planned fiber-optic network between the Poconos area and New York was supposed to have been awarded on Nov. 17 by Pennsylvania Gov. Ed Rendell's office. But that still hadn't happened as of press time last week.

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BRIEFS

IRS Drops Plan to Bid Out IT Work

The Internal Revenue Service has shelved a plan to hold a public/private competition that could have affected up to 2,000 of its IT workers. The IRS had hoped that opening its help desk operations, PC support and other "seat management" functions to external bids would improve efficiency. But the agency said an analysis showed that it is too large and spread out for the idea to be viable. The IRS is assessing alternatives, including a re-engineering of its IT processes.

3Com to Part Ways With Partner Huawei

3Com Corp. said it plans to buy out Huawei Technologies Co.'s stake in a networking equipment joint venture the two companies set up in 2003. 3Com will pay $882 million for Huawei's 49% share in the joint venture, which is based in Hong Kong but has most of its operations in Hangzhou, China. The deal still needs to be approved by the Chinese government, said 3Com, which took majority ownership of the joint venture last January.

Novell Pulls Out of Open-Source Project

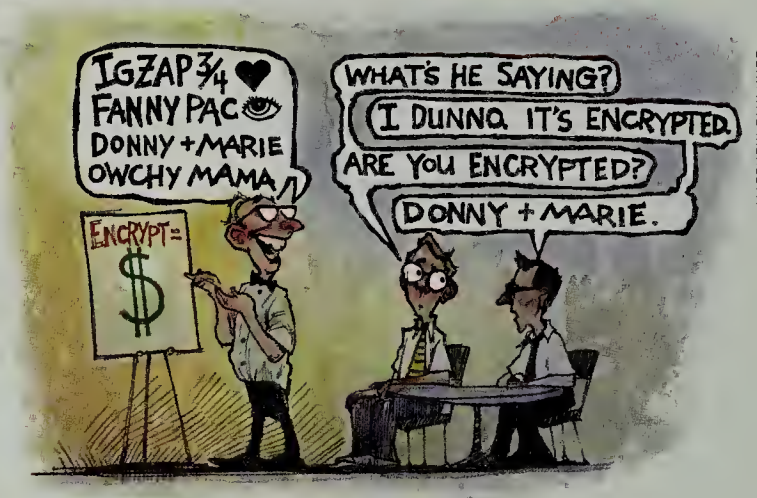
Novell Inc. has pulled its funding for the Hula open-source project and is reassigning its workers who had been involved in the collaboration server software initiative, according to a newsgroup posting by one of the employees. Novell's Hula team examined the opportunities for the project and decided that it wasn't worth continued investment, the worker wrote.

Short Takes

AFFILIATED COMPUTER SERVICES INC. said its CEO and CFO have resigned following an internal probe of the outsourcing vendor's stock-option practices found that the two executives had violated its code of ethics. . . . **PALM INC.** lowered the financial forecast for its second quarter, which ended on Friday.

ON THE MARK

HOT TECHNOLOGY TRENDS, NEW PRODUCT NEWS AND INDUSTRY BUZZ BY MARK HALL



MATTHEW FAULKNER

Encrypt Everything And Boost . . .

. . . your IT productivity everywhere. That's Phil Dunkleberger's sunny prediction for companies that adopt rigorous steps to scramble up their data, whether it's "in motion, at rest or in use." Dunkleberger is CEO of Palo Alto, Calif.-based security trailblazer PGP Corp., which was founded 15 years ago to put data encryption tools in the hands of everyone. Back in those days, Dunkleberger recalls, the U.S. government was throwing legal and bureaucratic roadblocks in front of companies that offered or wanted to use data encryption technology, because Uncle Sam wanted its spy agencies to dominate the field. And the press was filled with stories about Colombian drug lords using encryption to outwit hapless cops. Ironically, Dunkleberger observes, the feds are now encouraging — even mandating — encryption. Dunkleberger says that if you encrypt all of your data all of the time, your IT staffers won't have to fiddle with myriad security tools to block unauthorized access to data, because only users with access rights will be able to view the decrypted information. He also wants to lay to rest the long-held belief that encryption hampers network and systems performance. Vastly improved compression techniques have unclogged network pipes, Dunkleberger claims, while the products of Moore's Law now enable computers to crunch encryption algorithms with ease. Later this month, his company will release PGP 9.5.2, which automatically encrypts data stored on peripherals such as USB thumb drives, shared data stores or removable disks. Annual subscriptions start at $49 per user.

DUNKLEBERGER: Encrypt everything, always.

But encryption won't stop . . .

. . . viruses or spyware on your network. That's why even the folks at PGP will tell you to keep your antimalware tools up to date. One of your options is ZoneAlarm 7.0, which is scheduled to ship on Dec. 18. Laura Yecies, vice president and general manager of the consumer division at Check Point Software Technologies Ltd. in Redwood City, Calif., says the upgrade sports a new antivirus engine that gets more frequent updates on malware signatures and has more than 200,000 in its database already. One neat feature: It monitors Web sites that are notorious for trading credit card information and alerts end users if their private data is being auctioned on the black market. Pricing starts at $69.

YECIES: ZoneAlarm guards your credit data.

Develop real-time apps within the . . .

. . . Eclipse framework. "The demand for real-time event processing spiked this year," says William Hobbib, vice president of marketing at StreamBase Systems Inc. in Lexington, Mass. The primary causes, he adds, have been e-commerce and "click-stream fraud detection." On Friday, StreamBase will extend its application development environment by shipping two plug-ins for the Eclipse open-source development platform. With one, Hobbib says, programmers can use wizards to link to real-time data feeds from structured or unstructured sources via prebuilt connectors. The plug-in then lets you funnel the incoming information to his company's Stream Processing Engine for real-time analysis. The second plug-in enables you to graphically represent an application workflow and then output StreamBase source code. Both plug-ins are free.

80% of dev tools will offer real-time support by 2009, says Gartner.

End-user behavior often undermines . . .

. . . efforts to block malware. Hence the need for real-time exploit-detection tools, according to Roger Thompson, chief technology officer at Exploit Prevention Labs Inc. in Marietta, Ga. Thompson says his company's Windows-only software, LinkScanner Pro, protects people from sophisticated phishing schemes and prevents them from going to Web sites known to be unsavory. It can even determine whether unclassified sites are bad by detecting malware techniques such as obfuscated JavaScript code and stopping them before they hit a browser. An Internet Explorer version is available now; Firefox support will arrive in January. Pricing starts at $30.

Open-source software takes on . . .

. . . proprietary management tools. Critics of the big systems-management frameworks, such as OpenView, Tivoli and Unicenter, often decry their complexity and cost. Bill Karpovich, CEO of Zenoss Inc. in Annapolis, Md., contends that his Zenoss Core open-source tool "is more simple [and] more affordable than HP OpenView" and "can deliver 80% of what OpenView can." You know the "affordable" part, at least, is true, because Zenoss Core is free. The software does autodiscovery of what's on your network and creates an inventory for your configuration management database. It also monitors performance metrics such as microprocessor and disk utilization. In January, Zenoss plans to ship a plug-in that will let you create activity to simulate how real end users experience your system performance. If you want technical support, Zenoss charges $75 annually for each device that's being managed.

KARPOVICH: Open source for systems management is here.

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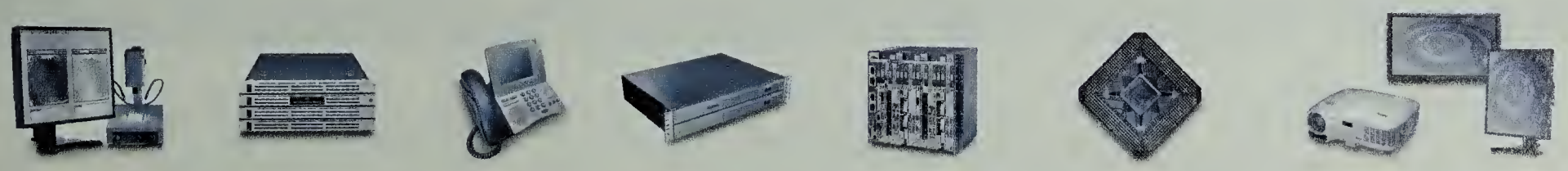

IT SERVICES AND SOFTWARE ENTERPRISE NETWORKING AND COMPUTING SEMICONDUCTORS IMAGING AND DISPLAYS

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Continued from page 1

Pandemic

demic. "It was an eye-opener," Stingl said of the presentation.

Brad Kowal, associate director of Shands HealthCare's data center, said the Gainesville, Fla.-based medical center has had its hands full dealing with business continuity planning aimed at protecting against hurricanes. "And then you throw this in [and are told to] get it done by the second quarter. It's literally stun and shock for me," he said.

A Shared Responsibility

McGee said pandemic planning costs should total no more than 5% of an IT budget, but he stressed that the burden shouldn't be absorbed by the IT budget alone — it should be shared throughout a company.

Among the things companies should do, McGee said, is decide whether they intend to keep their data centers operating during a pandemic. And then, if they do plan to keep IT operations going, they should consider preparing for up to a 12-week quarantine.

Gartner recommends that companies conduct educational sessions with employees so they know how to prepare their own households for a pandemic. In the office, one person should be made responsible for planning, and business continuity plans will have to be adapted for a pandemic, McGee said. He added that IT should oversee installation of broadband services to the homes of its most critical employees but also assume that there may be failures in public networks.

One person in attendance, who said he works at a Fortune 100 insurance company but requested anonymity, said his company has taken pandemic planning seriously.

"We have almost 30,000 employees, and fully a third of them in the next six months will be able to work remotely," he said.

In addition to ensuring that their own operations would be able to continue during a pandemic, IT managers should also review the contingency plans of their vendors, McGee said.

He added that vendor contracts should include service guarantees and "extraordinarily harsh terms if that vendor does not come through" in the event of a pandemic.

PANDEMIC COSTS

$4.4T

Estimate of global loss – up to 12% of worldwide GDP – if an "ultra" flu pandemic scenario hits.

LOWY INSTITUTE FOR INTERNATIONAL POLICY, SYDNEY, AUSTRALIA

McGee didn't tell attendees that a pandemic is in the offing. But pandemics have been regular occurrences in human history. And although it is unknown whether avian influenza will explode into a global pandemic, the number of deaths related to it are creeping up — and more appear possible as the disease spreads. Since 2003, 153 of the 258 people diagnosed with avian flu have died.

"The point is [that] the degree of transmission seems to be increasing from human to human," McGee said.

Toward the end of McGee's presentation, an electronic survey asked attendees whether they believe a bird flu pandemic will take place within three years. Fifty-eight percent said yes, 25% said no, and 17% said they weren't sure. ◗

IT: Virtual PCs Show Promise but Remain Unproven

LAS VEGAS

GARTNER ANALYSTS told attendees at the consulting firm's annual data center conference here last week that virtualized desktop environments are coming and that the technology may even lead to worker ownership of laptops.

However, IT managers here were more skeptical, saying that such a move may make sense in theory but current technology falls short of their needs.

Gartner analyst Thomas Bittman said many companies would prefer managing a virtual environment on an employee's laptop to worrying about all the other applications that may have been loaded on a system. "It's a lot harder to lock down the hardware than it is a virtual machine," he said.

Bittman also said that once a company makes the move to a virtual environment, it can explore the idea of subsidizing employee ownership of laptop PCs.

Some attendees agreed that virtual PCs could be more secure than current systems and less susceptible to conflicts and problems that could arise when road warriors install their own productivity applications or games. They also believe they might save on software licensing costs if applications can be delivered only as needed.

"I can see a drive toward virtual desktops," said Ben Davis, director of networks at Matria Healthcare Inc. in Marietta, Ga. Davis added that virtual desktops would give IT departments tighter control over software. Today, he said, if employees have PCs at home and access to the corporate network, "they basically have access to all of the network. With a virtual desktop, you can restrict that access."

But Davis isn't convinced that the technology now available matches the vision. "All I'm hearing is manufacturer hype," he said. "It's got to mature some."

Dodd Vernon, operations manager at Walgreen Co., a Deerfield, Ill.-based pharmacy chain with 5,500 stores, agreed. He said the virtualization of laptop and desktop environments has been discussed, but the technology needs to be proven before his company takes action.

Thomas O'Sullivan, operations manager at the Montana Department of Transportation, concurred with Bittman. "The laptop may be the next logical step," he said. O'Sullivan also said he could foresee employee ownership of laptops, noting that many already own the handheld devices that they use for work.

Vernon acknowledged the appeal of individually owned PCs with virtual work environments, saying, "I think there could be some cost benefit."

– PATRICK THIBODEAU

Denser Servers Lead to Increased Demand For Power and Cooling in Data Centers

LAS VEGAS

BEFORE STARTING construction of a new data center, Steven Olson, infrastructure manager at the *Las Vegas Review Journal*, visited about 40 existing ones to see how other IT managers approached cooling, power and design. "Most people are happy to let you in," he said.

Olson's employer, which operates a chain of newspapers, needed the new IT facility to meet the needs of its businesses, including an urgent requirement to upgrade and improve failing power systems. After his presentation at the Gartner data center conference here, Olson was peppered with questions by a group of attendees who sought details about his company's data center, which was completed last spring.

They weren't idle questions.

HOT DATA CENTER TOPICS

The bad news: By 2008, half of existing data centers will have insufficient power and cooling capacity for high-density IT equipment.

The good news: By 2011, more efficient power and cooling management systems will be in wide use.

SOURCE: GARTNER INC.

Gartner estimates that by 2008, about half of the world's data centers will have insufficient power and cooling capacity to handle high-density servers. Indeed, many IT managers at the conference said they were planning or building new data centers, leasing additional space, or expanding or retrofitting an existing facility.

Mike Curtright, data center supervisor at Pemco Insurance Co. in Seattle, said his company recently signed a long-term lease for data center space in a facility built during the dot-com era. Originally a mainframe shop, Pemco has been moving to dense blade servers. But while many applications have been migrated from the mainframe to the blade systems, not all are being moved, because power and cooling demands are increasing. "We're running out of chilling capacity," Curtright said.

Data center managers must also decide which technologies to use to power and cool their systems. There's an assortment of approaches to choose from, but some are still very new.

For instance, Barclays Capital, a division of Barclays Bank PLC in London, is using a carbon dioxide system to chill some of its servers. Paul Flatt, a consultant who is working on the project, said that although the CO_2 system is more expensive than a water-based one, it's more resilient and efficient.

There are even cooling technologies that spray a nonconductive agent directly onto processors to prevent them from overheating.

But Gary Comens, IT manager at Raytown School District in Missouri, said he will approach these new cooling technologies cautiously. "I don't know if we know what the long-term effects are of using these new substances on computer chips," he said.

Another approach, computational fluid design, is being used by data center managers to eliminate hot spots by examining airflows and relocating servers to the best possible sites within IT facilities, said Jack Funchion, a project manager at Align Communications Inc., a data center design firm in New York.

– PATRICK THIBODEAU

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Open Dialogue:

How Microsoft and Massachusetts Defused a Political Battle Over ODF

E-mails show that the vendor lobbied for hardball legislation over the file format controversy – and then backed off. **By Carol Sliwa**

LESS THAN a week after he became CIO of Massachusetts last February, Louis Gutierrez sensed a serious threat to his power — one that was being promoted by a seemingly unlikely source. Within a matter of days, Gutierrez confirmed that Brian Burke, Microsoft Corp.'s government affairs director for the Northeast, had been backing an amendment to an economic stimulus bill that would largely strip the Massachusetts Information Technology Division of its decision-making authority.

For Microsoft, the call to arms had sounded several months earlier, when the state's IT division surprised the company with a controversial decision to adopt the Open Document Format for Office Applications, or ODF, as its standard file format. Even worse, from Microsoft's perspective, the policy stipulated that new desktop applications acquired by state agencies feature built-in support for ODF, a standard developed and promoted by some of its rivals — most prominently, IBM and Sun Microsystems Inc.

The amendment Burke was promoting had the potential to stop the ODF policy dead in its tracks by giving a government task force and the secretary of state's office approval rights on IT standards and procurement policies. Gutierrez, who resigned last month over a funding dispute that appeared to be unrelated to the ODF controversy, clearly was rankled by Burke's involvement with the amendment. Yet he made no attempt to shut the door on Microsoft. On the contrary, he did the opposite.

"While Brian will never be welcome in my office, Microsoft, of course, will remain so," Gutierrez wrote to Alan Yates, a general manager in the company's information worker product management group, in an e-mail message that detailed what he had learned about Burke's lobbying.

The message, sent on March 3, is one of more than 200 e-mails and attached documents obtained by *Computerworld* under the Massachusetts Public Records Law. The e-mails provide a behind-the-scenes look at some of the hardball tactics used, compromises considered and prickly negotiations that ensued as Gutierrez and Yates each tried to deal with the ramifications of the first-of-its-kind policy calling for state agencies to adopt ODF by Jan. 1, 2007.

The topic of document formats may have an arcane air to it, but it matters deeply to the world's richest software company. Document formats have played a critical role in helping Microsoft to secure and maintain its dominance of the office-productivity applications market, with more than 400 million users of its Office software worldwide.

As he made a last-ditch attempt at compromise, LOUIS GUTIERREZ told Microsoft's Alan Yates, "I begin to let go of hope for a quiet, bilateral and pragmatic resolution of this matter."

"It wasn't the only reason that people standardized on Microsoft Office, but it was the main reason," said Michael Silver, an analyst at Gartner Inc.

When Massachusetts committed to its ODF policy, migrating away from Office appeared to be the only way that executive-branch agencies could comply. Microsoft had spurned the state's requests to engineer ODF support directly into Office, complaining in a 6,425-word document sent to the IT division in November 2005 that the open standard was "nascent and immature."

The company argued that its new Office Open XML format also merited inclusion in Version 3.5 of the IT division's Enterprise Technical Reference Model (ETRM), the newly minted open standards blueprint for state agencies. Microsoft even took the rare step of submitting Open XML to the ECMA International standards body in an attempt to show that its format would pass muster as "open." But to Microsoft's chagrin, Massachusetts issued only a non-committal statement of optimism that Open XML would someday meet its standards.

Worldwide Impact

Microsoft's concerns extended well beyond Massachusetts. Yates told Gutierrez in one e-mail that the state's mandate carried "a lot of weight" with public policy makers around the world. And he repeatedly complained in his messages to the CIO that Microsoft's rivals were misrepresenting the state as the "reference case for a mandatory ODF-only policy," rather than stating its broader goal of embracing open standards in general.

"We think the common external view is that the current policy is etched in stone and [that] Microsoft products and technology are shut out of the Commonwealth unless we agree to neuter our products for awhile," Yates wrote to Gutierrez in April.

The fact that the ODF policy threatened Microsoft's business interests wasn't lost on Eric Kriss, who had paved the way for its adoption while serving as a cabinet secretary under Massachusetts Gov. Mitt Romney. In an interview, Kriss said he wasn't surprised by "the aggressiveness" that Microsoft showed both public-

COMING TO TERMS

> **"I believe I've had enough. You all do what you need to do. We'll do what we need to do."**
>
> FROM AN APRIL 8 E-MAIL FROM **LOUIS GUTIERREZ,** THEN THE CIO OF MASSACHUSETTS, TO MICROSOFT EXECUTIVE ALAN YATES

> **"We disagree with the governor's mandatory ODF policy as much as ever, but also respect your position and approach to the future; and will no longer argue our case for legislation."**
>
> FROM A MESSAGE THAT YATES SENT TO GUTIERREZ ON APRIL 11

ly and privately in pursuing its opposition to the ODF policy.

"I think Microsoft took a good run at trying to change the world as opposed to trying to change [itself]," Kriss said. "And you expect to get the shock and awe when that happens. That's what we got."

Kriss, who left his post as secretary of administration and finance shortly after Version 3.5 of the ETRM was issued in September 2005, instigated the open-standards policy based on the belief that public documents shouldn't be tied to a single vendor's proprietary document format.

He was no stranger to technology himself. Following a prior stint as the state's finance secretary, Kriss became CEO of MediQual Systems Inc., a database developer with products based on Microsoft's FoxPro software. He left MediQual in 1998 to start his own business, Workmode Inc., which uses open-source software to develop Web-based business applications. He makes no secret of his belief that governments eventually will move to open source.

Not Anti-Microsoft

But Kriss insisted that the ODF policy wasn't intended to be anti-Microsoft. He said technical people at Microsoft told him it would be "trivial" to add support for ODF to the new Office 2007. The resistance to doing so came from the vendor's business side, according to Kriss.

Yates told *Computerworld* in an interview last month that ODF "came up late in the development process for Office 2007" and that the standard "really isn't finished." He also said Microsoft was "surprised" when Massachusetts issued the ODF mandate and dropped what he claimed was an earlier agreement for the state to accept Office file formats as being open (see article, page 20).

As part of his e-mail exchanges with Gutierrez, Yates didn't deny Burke's involvement in promoting the amendment sponsored by state Sen. Michael Morrissey that sought to take away much of the IT division's decision-making authority.

"I am certain that Brian was involved," Yates wrote to Gutierrez in response to the CIO's March 3 message about Burke's role in lobbying for the amendment. But Yates claimed that Burke's intention was "to have a 'vehicle' in the legislature" to address a policy that Microsoft viewed as "unnecessarily exclusionary." Burke's aim was "not specifically to transfer agency authority," Yates wrote.

He also asserted that the Morrissey amendment "was developed and is promoted by others who were/are very inflamed by your predecessors' handling of many things." The predecessors Yates referred to were Kriss and Peter Quinn, who was CIO before Gutierrez and had cited the Morrissey amendment as one of the contributing factors when he resigned last January.

During his interview with *Computerworld*, Yates was adamant that neither Microsoft nor anyone on its payroll had authored the amendment. In response to questions about the company's lobbying activities, he said, "At the time, our public affairs people were — you can call it lobbying — but they were in fact trying to educate people to the real issues in the mandate for ODF. And we were, yes, arguing against it — absolutely."

The situation started to change in late March and early April, however. A March 30 e-mail from Yates indicated that he had received a phone call from Gutierrez and that the CIO wasn't happy. Yates wrote that he had spoken with Burke after Gutierrez called, "and ALL activity in and around the capitol building next week is now being canceled."

By that time, discussions geared toward a compromise were in full swing between the two men. Gutierrez, who declined to comment for this story, was dogged in his quest for an Office software plug-in that could translate documents into and out of ODF. That would spare him the trouble of having to plot a potentially costly and time-consuming migration of tens of thousands of PCs to applications with built-in ODF support, such as IBM's Workspace, Sun's StarOffice and the open-source OpenOffice.org suite.

He also hoped the plug-in approach would satisfy advocates for the blind and visually impaired who had raised concerns that the most popular software products for reading and magnifying computer screens don't work as well with ODF-supporting applications as they do with Office. Some advocates had threatened to file lawsuits based on federal antidiscrimination laws if the state moved to software that was inaccessible to people with disabilities.

Gutierrez first broached the subject of a "save-to-ODF" plug-in in a Feb. 17 e-mail to Yates. A subsequent message from Gutierrez on March 31 indicated that Microsoft had "committed" to Thomas Trimarco, Kriss' successor as the state's administration and finance secretary, that it would be willing to work with a third party to "technically cooperate, and possibly financially cooperate" on creating an ODF converter plug-in for Office.

In early April, Gutierrez signaled that he was willing to consider a memorandum of

Continued on page 20

Microsoft Gets Help From Both Sides of the Aisle on Lobbying

BRIAN BURKE, the Microsoft official who was barred from former Massachusetts CIO Louis Gutierrez's office because of his lobbying activities, is one of a cadre of well-connected Democrats on the company's payroll in the state.

Burke served in senior government positions in the Clinton administration and later worked on the Kerry/Edwards presidential campaign prior to joining Microsoft as its government affairs director for the Northeast.

Massachusetts public records show that Burke registered with the state as a lobbyist for Microsoft last year. Under "activity performed," Burke listed 96 pending pieces of legislation as well as Version 3.5 of the state's Enterprise Technical Reference Model. Burke did not register as a lobbyist this year because he didn't meet the hourly threshold that would have required him to do so, according to a Microsoft spokeswoman.

Another influential Democrat who has done significant work for Microsoft on a contract basis is John E. "Jack" Murphy Jr. A former state representative with close ties to leaders of the Democrat-dominated legislature, Murphy heads one of the highest-paid lobbying groups in Massachusetts. The $837,850 in lobbying fees that his firm collected last year included $60,000 from Microsoft, matching the maximum it was paid by any client.

Weighing in from the Republican side with arguments favorable to Microsoft's position on the ODF issue were Washington-based lobbying groups such as Americans for Tax Reform. ATR is headed by conservative activist Grover Norquist, who was once a registered federal lobbyist for Microsoft and has close ties to the Bush administration.

Norquist told *Computerworld* that ATR sent two letters to Gov. Mitt Romney, a conservative Republican with presidential aspirations, to share its concerns that the state hadn't done a cost-benefit analysis on ODF and might violate intellectual property rights if it moved to open-source software.

E-mail records released in mid-October by the U.S. Senate Finance Committee as part of a 600-page report show that Microsoft had paid ATR in the past. The report questions the tax-exempt status of organizations such as ATR and examines its ties to convicted federal lobbyist Jack Abramoff, a longtime Norquist associate. E-mails included in the report indicate that Abramoff channeled money to ATR and other nonprofit groups in return for their advocacy on issues.

According to the report, on March 10, 1996, Abramoff wrote to Bruce Heiman, a colleague at Preston Gates & Ellis LLP, that Microsoft was "supposed to be paying [Norquist] $120k for this year ($10k a month)" and that "these lack of payments are really disgusting." After receiving a reminder letter from Heiman on March 26, Jack Krumholtz, Microsoft's managing director of federal government affairs, wrote to Heiman, "A check for $60k was mailed on 3/26; he should have it any day. I forwarded the new invoice to Redmond and it's been processed."

The report was prepared by the committee's Democratic staff but couldn't have been released without the Republican leadership's consent, according to a Finance Committee staffer who said the document has been referred to officials at the Justice and Treasury departments.

ATR spokesman John Kartch said Norquist worked as a consultant to Microsoft for two years in the mid-1990s, "offering strategic advice on working in Washington." The e-mails included in the report "refer to his work with Microsoft back then," Kartch said.

Ginny Terzano, a Microsoft spokeswoman, said the e-mails "are exchanges that took place 10 years ago" and are "very unrelated" to the ODF issue in Massachusetts. She wouldn't comment on whether Microsoft provided funding to ATR last year but said the company currently isn't a sponsor of the group and "did not specifically work with" ATR on ODF-related lobbying.

In Massachusetts, Sun and IBM also did their fair share of lobbying in an attempt to make sure that the state's IT division had no cause to waver from its ODF policy.

Sean Curran, a lobbyist at Waterville Consulting LLC, which has offices in Boston and in Albany, N.Y., received $60,000 in fees from Sun last year, according to Massachusetts state records. On March 11 of this year, Curran sent out an e-mail update on the activities of Microsoft and other opponents of the state's ODF policy who were supporting the proposed amendment to take away much of the IT division's decision-making authority.

"We will be fighting this until the amendment is dead," Curran wrote to Doug Johnson, a program manager in Sun's corporate standards group, and to Gutierrez.

– CAROL SLIWA

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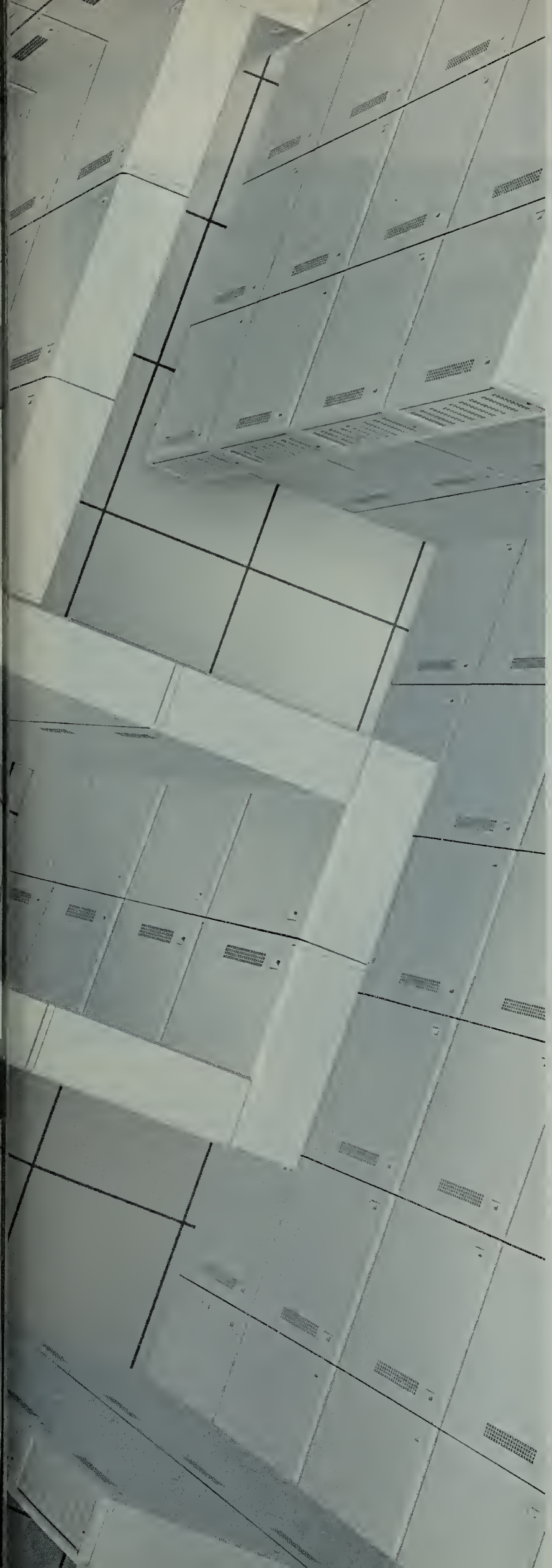


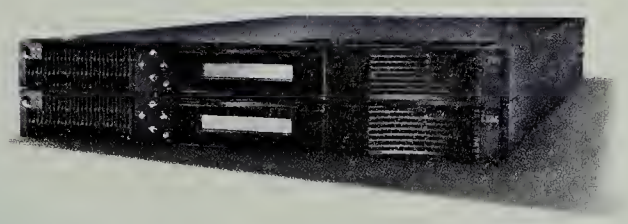
_INFRASTRUCTURE LOG

_DAY 45: These underutilized storage boxes have proliferated exponentially. Their inability to share capacity has doomed us. We're trapped in a maze of our own creation.

_DAY 47: I tried to give Gil a boost over this wall, but he pulled a hammie.

_DAY 48: I've taken back control with IBM System Storage™ SAN Volume Controller. It puts my entire storage universe into a simple, virtualized pool. And, unlike EMC, IBM has fourth-generation virtualization technology and over 2,000 customers. I am seeing results.

_Productivity is up. Utilization is up. I.T. guys lost in mazes of data is down.



IBM.COM/**TAKEBACKCONTROL**/STORAGE

Continued from page 17

understanding that Microsoft had drafted. The company said it would publicly commit to financially supporting the development of third-party ODF conversion tools. In return, Massachusetts would announce that Open XML met its criteria to qualify as an open format and merited inclusion in future ETRM revisions, pending the technology's sanction by an international standards body.

Microsoft went so far as to prepare a draft press release announcing the agreement. But Gutierrez wrote to Yates that he viewed "Draft 1" of the memorandum of understanding as "a bit of a slap."

No 'Chest Thumping'

At 9:27 p.m. Eastern Time on Friday, April 7, Gutierrez sent a message to Yates offering an "alternative formulation," writing that he would "avoid any chest thumping or anything that smacks of nongracious support for a Microsoft ODF conversion commitment."

Gutierrez added that, contingent on the delivery of a working ODF converter that was either inexpensive or free to government users, the state would "essentially say 'this war is over' and we look forward to long-term use of competitive office suites, including Microsoft Office."

The discussions broke down, though. "I believe I've had enough," Gutierrez wrote to Yates on April 8. "You all do what you need to do. We'll do what we need to do."

The next day, a Sunday, Gutierrez offered one last gasp at a compromise, repeating his previous offer "even as I begin to let go of hope for quiet, bilateral and pragmatic resolution of this matter."

Yates responded on the evening of April 11. First, he told Gutierrez that Microsoft thought "a public announcement in the current environment probably was not a good step for either of us. It would just be too easy to 'spin' such an announcement in a negative way against us or you."

Yates added that Microsoft would no longer pursue "legislative action" against the ODF policy because that approach had created "such friction" with the state's IT division, Trimarco and Romney.

"We disagree with the governor's mandatory ODF policy as much as ever," Yates wrote, "but also respect your position and approach to the future; and will no longer argue our case for legislation — simply based on the constructive communication with you."

In his interview with *Computerworld*, Yates said, "There was a time when we just stopped because we felt that at that point, the decision-makers in Massachusetts did understand the issues and were acting reasonably and rationally, and things would take care of themselves over time."

An April 21 e-mail from Yates to Gutierrez said Microsoft's "senior government leaders" were encouraged to hear that the CIO had given the go-ahead to distribute an internal memo about a new Enterprise Agreement the Massachusetts Operational Services Division had negotiated with Microsoft. The contract enables the state as well as municipalities to buy Microsoft products at discounted prices. Last year, a total of $5.8 million was spent under a previous deal.

"As always, please let me know if there is anything happening locally that causes you concern," Yates wrote in closing to Gutierrez. "I assume that everyone on the ground in MA for MSFT is acting according to my directions as I communicated to you."

Gutierrez told Yates in response that Microsoft's promise to stop lobbying for the amendment aimed at the IT division had "already helped." He wrote that if the Morrissey amendment or a version of it was approved, "my responses will be as immediate, sharp and unsparing as committed earlier. But that is a precaution that I trust is more formality than substance at this point."

The Massachusetts legislature approved the economic stimulus bill in June without the amendment. In early July, Microsoft announced that it was sponsoring an open-source project to develop an Office plug-in for translating files between Open XML and ODF. And Gutierrez formally announced on Aug. 23 that the state at least initially would adopt a plug-in strategy to fulfill the ODF policy. By then, he had no need to rely solely on the fruits of the Microsoft-backed project. Plug-ins also had been submitted to the state for testing by Sun and the OpenDocument Foundation.

The tortuous process that played out in Massachusetts is starting to have an effect well beyond the state's borders. For example, without the plug-in approach, Belgium's national government wouldn't be able to meet ODF adoption deadlines that are due to begin taking effect next September, said Peter Strickx, chief technology officer at the Belgian Federal Civil Service's Information and Communication Technology Division in Brussels.

Like Massachusetts, Belgium is taking a wait-and-see approach toward Open XML. "The objective is interoperability," Strickx said. But he added that the government doesn't plan to migrate its entire user base away from Office. "That's between 60,000 and 80,000 users," he noted. "We're in a very tight budgetary situation, so we cannot ask the IT managers to spend even more on something that in their opinion doesn't bring any real business value."

When Gutierrez announced his resignation as Massachusetts CIO in early October, he cited the legislature's failure to pass a bond bill that included funding for key IT projects. Since the bill also would have funded non-IT projects, the stall didn't appear to be directly tied to any remaining opposition to the ODF policy.

Ironically, on Nov. 2, Gutierrez's last day as CIO, Microsoft announced an agreement with Novell Inc. that included a pledge to cooperate on development of translation software to improve the way ODF and Open XML work together.

What a difference nine months had made. ▸

State's Snub on File Formats Caught Microsoft by Surprise

ACCORDING TO AN E-MAIL written by a Massachusetts official, Microsoft was given just over 30 days advance warning that the state's IT division wouldn't be including Office Open XML as an acceptable file format in a draft of Version 3.5 of its open-standards blueprint posted online on Aug. 31, 2005.

Linda Hamel, the IT division's general counsel, sent the e-mail on Aug. 1 of last year to then-CIO Peter Quinn and his boss, Eric Kriss, who was the state's secretary of administration and finance. Hamel said she had spoken with Erich Anderson, a lawyer for Microsoft's desktop division, about a July 28 meeting at which state officials delivered the news on Open XML to the company.

During their telephone call, Anderson indicated that he was "quite surprised" to hear of the plans to adopt the Open Document Format for Office Applications as a standard, given Microsoft's "prior attempts to accommodate" the state on its formats, Hamel wrote. She added that Anderson asked why the state "had a change of heart" about Open XML after listing it as acceptable in a draft of Version 3.0 of the Enterprise Technical Reference Model blueprint in March 2005.

Hamel wrote that she told Anderson the decision was the result of public comments received after the posting of the ETRM 3.0 draft and discussions at the Open Format Summit the IT unit had held in June. She also cited the state's "need to ensure that documents remain readable over the long term as the technology evolves, independent of specific vendors."

The IT division deleted the entire section on data formats from ETRM 3.0 before publishing the final version in May 2005. But in ETRM 3.5, the formats section was restored and listed ODF and Adobe Systems Inc.'s Portable Document Format as meeting the state's criteria.

Alan Yates, general manager of business strategy in Microsoft's information worker product group, said last month that the company thought it had addressed the concerns of state officials about its formats.

"We had an agreement," Yates said, "that our changing the license for our [Office] 2003 open file format was what they wanted, and they posted that on their Web site. They said, 'That's what we were looking for in openness for a format.' And then when they made the ODF mandate, that changed immediately. That surprised us."

But Kriss, who oversaw the IT division and instigated the adoption of the state's ODF policy, said last week that he doesn't see how Microsoft could have been surprised. He said that Microsoft's agreement to amend its license briefly appeared to meet the state's criteria for openness but that Massachusetts officials continued to wrestle with issues involving the company's patents.

"At every step along the way, we were extremely clear," telling Microsoft that the state wanted it to drop any right to assert patent claims on its file formats, Kriss said. He added that he was in the room for every significant conversation with Microsoft. "It was conducted completely above-board," he said. "That's just the way I am."

E-mails obtained by *Computerworld* show that state officials also held discussions with Sun Microsystems about its intellectual property rights with respect to ODF.

In a message dated July 22, 2005, Sun's Jonathan Nimer notified the state that the company was "just about finished with preparing a statement about not asserting our patents, subject to reciprocity, concerning the OpenOffice.org XML" file format specification. State records show Nimer sent the statement on Aug. 1.

Eight days later, Hamel informed various IT division colleagues via e-mail that Sun's covenant "fully" satisfied any legal concerns she had.

– CAROL SLIWA

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Salesforce.com Expands Its Integration Capabilities

BY MARC L. SONGINI

Continuing its effort to reduce the cost and complexity of linking its hosted CRM software to other applications, Salesforce.com Inc. last week announced a series of additional integration capabilities.

The San Francisco-based vendor said it plans to offer a set of packaged connectors for tying its customer relationship management tools to Oracle Corp.'s E-Business Suite 11i back-office applications.

The Oracle connectors are due early next year and will support a bidirectional flow of data to ensure that information stored in the two product lines is synchronized, said Ariel Kelman, senior director of platform product marketing at Salesforce.com. It already offers similar hooks to SAP AG's ERP applications, as well as to Office, Outlook and Notes.

Salesforce.com is also adding an outbound messaging interface that will let its applications automatically notify third-party programs of transactions, such as the creation of a new customer account.

In addition, the CRM vendor said that more than 25 other software developers are using its newly named ApexConnect integration technology to offer plug-and-play connections between their products and the Salesforce.com software.

Downside to Integration

Joe Graves, IT director at Stratus Technologies Inc. in Maynard, Mass., said he thinks the broader integration capabilities will help expand the number of third-party vendors that offer products through Salesforce.com's AppExchange online marketplace.

However, AppExchange requires users to deal with multiple software developers, not just Salesforce.com, Graves noted. He described that as a downside for Stratus, a maker of fault-tolerant servers that runs Salesforce.com's applications as part of its lead-generation and sales processes.

Stratus also uses Version 10.7 of Oracle's E-Business Suite software and is upgrading to the 11i release. But it already uses a custom-built interface to connect the Oracle and Salesforce.com applications, Graves said. The existing interface works so well, he added, that there would have to be a special reason to buy the new packaged connectors.

Strong integration tools are necessary as Salesforce.com continues to try to move "upmarket" into larger deployments, said Forrester Research Inc. analyst Liz Herbert.

But the CRM vendor also needs to be less rigid on its pricing of $195 per month for each end user, she said, adding that large installations can get very expensive.

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CA Unifies Management of Virtual Servers

BY MATT HAMBLEN

CA Inc. last week released a revised Unicenter tool designed to let data center workers consolidate management of servers that use clustering and virtualization technology from various vendors.

Release 11.1 of the Unicenter Advanced Systems Management software supports virtualized and clustered servers through a single interface, said Paula Daley, CA's director of marketing for the ASM tool.

She added that IT workers can use the same commands to manage systems equipped with technology from vendors such as VMware Inc., Microsoft Corp., Red Hat Inc., Sun Microsystems Inc., IBM and Hewlett-Packard Co.

The previous version of ASM, Release 11, could manage virtualization software from VMware and Microsoft only. The upgrade also relies on Microsoft's SQL Server database as its central data repository instead of the Ingres open-source database that CA still offers in an earlier version, Daley said.

John Coleman, manager of technology services at WellSpan Health in York, Pa., said he has been testing ASM 11.1 for about six weeks and hopes to begin using it to manage VMware and IBM virtual systems in January. Systems running Microsoft's virtualization software would be added later next year, he said.

Dynamic Management

Coleman said every virtualization vendor has a different management console, making a tool like ASM valuable in a mixed-systems data center such as WellSpan's. He also said it will come in handy when the health care provider, which owns two hospitals and a variety of other facilities, needs to reallocate computing tasks to different virtual machines based on changes in user demands.

"With virtualization, you don't have the physical equipment to touch for management, and things are always in constant flux," Coleman said, adding that his staffers should be able to manage systems more dynamically with ASM.

"A lot of folks in IT assumed that just implementing virtualization was going to solve all their problems, when, in fact, it introduces the need for even more management," said Rich Ptak, an analyst at Ptak, Noel & Associates in Amherst, N.H.

For now, CA might be unique in offering such a complete package of capabilities in a single tool, Ptak said. But he added that he expects competition from other vendors, including HP, BMC Software Inc. and IBM's Tivoli Software unit.

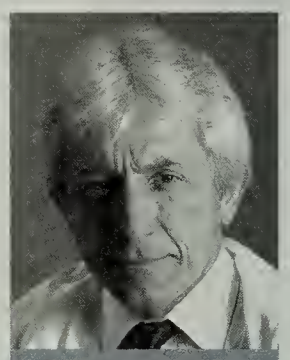
ASM starts at about $30,000 and requires users to also have CA's Unicenter Network and Systems Management tool, a separate product that starts at about $10,000.

DON TENNANT

Handling Microsoft 101

AS RON HOVSEPIAN approaches the six-month mark as Novell's CEO, it's difficult not to be impressed with his leadership of what had been a floundering, faltering fiasco under the stagnant watch of former CEO Jack Messman. And nowhere has that leadership been demonstrated more impressively than in the technology collaboration agreement Novell reached with Microsoft last month.

Under the deal, Microsoft will provide sales support for Novell's SUSE Linux, and the two companies will work together to make it easier for users to run both Windows and Linux on their systems. But it's not so much the deal itself that speaks to Hovsepian's leadership. It's what went on behind the scenes to make it happen.



DON TENNANT is editor in chief of *Computerworld*. Contact him at **don_tennant@computerworld.com.**

I met privately with Hovsepian last week to learn more about the tie-up, and I came away from the meeting with the sense that Hovsepian should teach a course on how to deal with Microsoft. The syllabus would be divided into two lessons: Lesson One is "Start with an Unimpeachable Position"; Lesson Two is "Never Buckle on the Big Stuff."

Lesson One began last May, when Hovsepian picked up the phone and called Kevin Turner, Microsoft's chief operating officer. Hovsepian knew Turner from the days when the latter was the CIO at Wal-Mart, and he was betting that Turner was still able to think like a customer.

"I said, 'Kevin, I'd like to have a conversation about what the customer needs,' " Hovsepian recounted. " 'If you could put back on your old hat as a customer, if I came in and started talking to you about virtualization on Linux, and this Microsoft guy showed up and started talking to you about virtualization on Windows, what would you say to us?' "

Turner's response, Hovsepian said, was what one would expect from an ex-IT executive: "I'd want both of those things together. I don't want the fighting; I don't want to deal with it. I'd tell you two guys to go figure out how to make it work."

"Well, that's why I'm calling," Hovsepian told him. "How do we make that work around virtualization?"

"You're absolutely right, that is how my brain would work as a customer," Turner said, according to Hovsepian's account. Turner called Steve Ballmer and explained the customer perspective, and "a week later we were all sitting in Chicago having a discussion about virtualization," Hovsepian said. It was a perspective and a position that would have been awfully difficult for Ballmer or anyone else at Microsoft to shoot down.

Lesson Two, the one that covers the essentials of not caving in to Microsoft, was exemplified early in the technology collaboration negotiations. According to Hovsepian, Microsoft initially took the position that Linux could run as a guest operating system on a Windows host but Windows would not run on a Linux host. "That was just a nonstarter," Hovsepian said. "It had to be bidirectional so the customer can make that decision." Hovsepian stood firm, and bidirectional it is.

Standing firm worked equally well when, two weeks after the agreement was announced, Ballmer blindsided Hovsepian by proclaiming that Linux customers have "an undisclosed balance sheet liability" because Linux "uses our intellectual property." When Hovsepian shot back with an open letter denouncing those comments, Microsoft backed off. It issued a statement reaffirming that while Microsoft "respectfully" takes a view on the patent issue that's different from Novell's, a "patent covenant for customers" is indeed in place.

Novell's customers can be thankful that it's Hovsepian who's teaching Handling Microsoft 101. If they had tried to take the class last year, there wouldn't have been a qualified professor to teach it. ◗

Don Tennant

BRUCE A. STEWART

Keeping Two Sets of Books

NOW THAT Christmas is approaching, most of my clients are breathing a sigh of relief.

The annual planning exercise and budget process is just about over. Time to head to the parties!

Not so fast -- did you do the second set of books?

Now, the compliance folks have probably got you in their sights for even reading that, but consider this question: Does your budget tell you anything useful about how to make changes?

If it is like most of the budgets I get to see, the answer is a resounding no. The budget doesn't tell you enough about where your real budget-changing opportunities lie — and if you're like most of the clients I have, 80% or more of your IT budget is tied up in standing still — just paying salaries, maintenance and license fees, depreciation, and running and maintaining your applications. Less than 20% will go toward doing anything for which you can get credit.

BRUCE A. STEWART is a former CEO and onetime senior vice president and director of executive services at Meta Group Inc. He is now an executive adviser in Vancouver, British Columbia. He can be contacted at **bruce@bastewart.com**

So build a second set of books. This one isn't going to be organized by department, however. It will be organized by application. Each application is a "group" unto itself.

So, what gets charged against an application? Well, the infrastructure it runs on. Please resist the urge to apportion slices: If it runs on a server (even if consolidating or virtualizing means it shares the hardware), that application requires that server. If it runs on a mainframe, it runs on the smallest mainframe that can support it. Count everything — all the licenses required to operate the machine and all the licenses required to operate the application.

Yes, when you do a second application, you'll double-count things. That's OK. These are meant to be "cooked" books.

Also provide for salaries. Operators and system managers are sold only in units of one; we don't apportion these, either. The more support staffers that are needed to keep the machine running, the more you add in.

Did you add the disaster recovery capability for this application? It's not on the recovery list? Why are you running it at all, if it's not going to be needed later? Having the user decide what's worth paying for is 1990s thinking. It's either needed or it isn't, and if it's needed, it needs to be recovered.

Now add in every development tool you used to build the application and every tool you use to test and maintain it. Do you have a dedicated team that maintains this application? Add those people's salaries in.

If you use an outsourcer that charges you by the application rather than by other units for operation and maintenance, you are ahead of the game. Just use the charges. Now sort your applications, from the cheapest to own and operate to the most expensive.

The ones at the expensive end of the list are your prime candidates for reconsideration. Maybe that means retiring them. (If they're not really needed, why have them at all?) Maybe it means replatforming them to an infrastructure that's cheaper to own. Maybe it means rewriting them.

These numbers aren't for a business case, but they do tell you where you should put your efforts to lower that 80% (or more) that goes into standing still. Coming forward with a "let's replace wish list" is a solid way to make change happen. Just don't show anyone your second set of books!

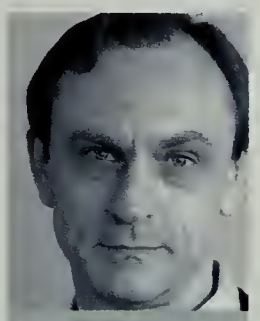
MICHAEL H. HUGOS

Radar for The System Builder

AFTER YEARS of designing systems and running projects to build them, I have settled on five key questions that I want answered every week by each project team. These questions cover the full range of things that can make or break a project, which means I want to know about them right away.

Because I want answers that are clear and not mixed in with a lot of words that can be used to obscure, mystify and spin the facts, they are yes-or-no questions. If team leaders can't (or won't) give me clear answers, it always means trouble. I've found that the inability to give me a straightforward answer comes down to one of two reasons. Either the team leader doesn't really know the answer because he's not in control of the work his team is doing and doesn't know what's going on, or he does know what's going on but wants to spin the facts and only selectively reveal what's really happening. The second reason makes me even more nervous than the first one.

Human nature being what it is, people on projects are often reluctant to report bad news. After all, we've all known managers who have shot the messenger who brought bad news. Because of this, weekly project reports can become exercises in hiding bad news and playing up (sometimes imaginary) good news. The system builder, that person responsible for guiding the project through to a successful conclusion, winds up getting snowed under by a blizzard of words. And then the fog closes in, people get lost, and the project starts to wander aimlessly.



MICHAEL H. HUGOS is a principal in Effective Systems Inc. and a speaker. He is a member of the 2006 *Computerworld* Premier 100 IT Leaders class. His books include *Essentials of Supply Chain Management, 2nd Edition* (John Wiley & Sons, 2006). He can be reached at **mhugos@yahoo.com**.

The following five questions are the radar I use to see through the fog:

1. Has the scope of any project task changed?

2. Will any major activity or milestone date be missed?

3. Does the project team need any outside skills or expertise?

4. Are there any unresolved technical problems?

5. Are there any unresolved user review or approval problems?

Whenever the answer to one of those questions is yes, the team leader has to follow up with a short assessment of the problem and what he sees as the one or two best options for dealing with it. This is important because people on a project must focus on answers, not just problems. I don't need a bunch of highly paid team leaders to tell me what can't be done or why things won't happen on time. By telling me how to cope with the problems we're facing, the team leader and I both have skin in the game; we'll figure something out.

To sail your project safely through the fog and storms that inevitably occur, you need to get these answers every week from every team leader on your project. If you do, you will spot trouble early enough, and you will have the time and options for responding effectively. Don't worry about the good news; there will be plenty of time to celebrate that. It's always the undetected bad news that sinks the project. Turn on your radar.

WANT OUR OPINION?

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READERS' LETTERS

In HP's Defense

THERE IS nothing unsavory about "feeding false information to a reporter as a means of smoking out her source" ["Dribs, Drabs and Dysfunction," Editorial, Oct. 2]. Since the reporter was willing to receive stolen (intellectual) property (HP confidential information to which she had no right) from the leaker, she is not entitled to any protection. HP's actions were no different than using an RFID tag to track down stolen physical property.

Mark Wallace
Enterprise architect, Database Architechs, Lake Forest, Calif.

Students Go Where The Jobs Are

KIDS TODAY are avoiding technical careers not because the jobs are boring or too tactical ["A Scarcity of IT Talent Will Force Piracy," *Computerworld.com*, Oct. 2]. There are plenty of smart young people in this country who could be engineering or computer science majors, but all they hear from parents, friends, neighbors and the media is how the technical jobs are being offshored. Why would these kids want to go through fours years of college, in very difficult majors, only to find that there are no jobs for them in this country?

Stop blaming the kids and start blaming the companies that have shipped all their production and support offshore. If you want more kids to pursue technical careers, then make sure that there will be U.S. jobs when they graduate.

James Ryder
Principal analyst, National Grid USA, Syracuse, N.Y., James.Ryder@us.ngrid.com

Predictive History

PREDICTIVE ANALYSIS has been around for ages ["Predictive Analytics," QuickStudy, Oct. 9]. Nine years ago, a start-up called Trivida used it to drive real-time recommendations on individual and affiliated Web sites and to determine demand at retailers' multisite outlets. It was impressive enough to attract the attention of affiliate marketer BeFree, which purchased the technology (before being acquired itself by ValuClick).

At about the same time, Dynaptics used a similar prediction engine to help e-commerce companies improve per-visit revenue. And neither company used the generic data analysis that Amazon has relied on for years ("Other customers who bought X also bought Y").

Peter Altschuler
Vice president, marketing strategy, Wordsworth & Co., Santa Monica, Calif., altschuler@wordsworthandco.com

Tool Was 'Just Write'

I FOUND WRITELY, Google's word processing offering, a lifesaver ["Toy or Tool? Google Docs & Spreadsheets Reviewed," *Computerworld.com*, Oct. 13]. As a journalist covering a show in Japan, I was forced to use laptops in the pressroom that lacked any Microsoft Office applications. So, I accessed Writely, posted my text and saved it on the site. Back in my hotel room, I easily picked up the text and combined it with photos (and image processing) on my own laptop and posted my articles. Writely isn't a replacement for a dedicated word processor, but it's a great tool to keep in your arsenal.

Fred Manteghian
Torrington, Conn.

Long Live the Queen

YOUR OCT. 12 *Computerworld.com* article asks, "Is the King's English Dead?" Yes – for the last 53 years, in England at least, it has been known as the Queen's English.

Reg Harford
Strathroy, Ontario

COMPUTERWORLD welcomes comments from its readers. Letters will be edited for brevity and clarity. They should be addressed to Jamie Eckle, letters editor, Computerworld, PO Box 9171, 1 Speen Street, Framingham, Mass. 01701. Fax: (508) 879-4843. E-mail: letters@computerworld.com. Include an address and phone number for immediate verification.

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SECURITY MANAGER'S JOURNAL

Stopping Data From Flying Off to Google

New desktop PCs at C.J. Kelly's state agency come with Google Desktop installed. So, what could be the problem with such a useful program? Take a look at the Search Across Computers feature, which gives our columnist the creeps. **PAGE 36**

OPINION

Why Bluetooth Is Still a Pain

David Strom says Bluetooth products are sexy, but they have some serious compatibility problems that can cause headaches for corporate IT departments. **PAGE 38**

CLOSE ENCOUNTERS *with* Office 2007

Microsoft's new Office suite has some alien features, but praise for backward compatibility, user training and ROI

BY ROBERT L. MITCHELL

As Microsoft Office 2007 begins its long-awaited rollout, Joe Marshall is ready. Having worked with the beta version, Marshall, a business systems analyst at Geiger Brothers Inc., has decided to recommend that the 400 users in the Lewiston, Maine-based promotional products company migrate to the office productivity suite in the first half of 2007. "I think it will make them more productive," he says.

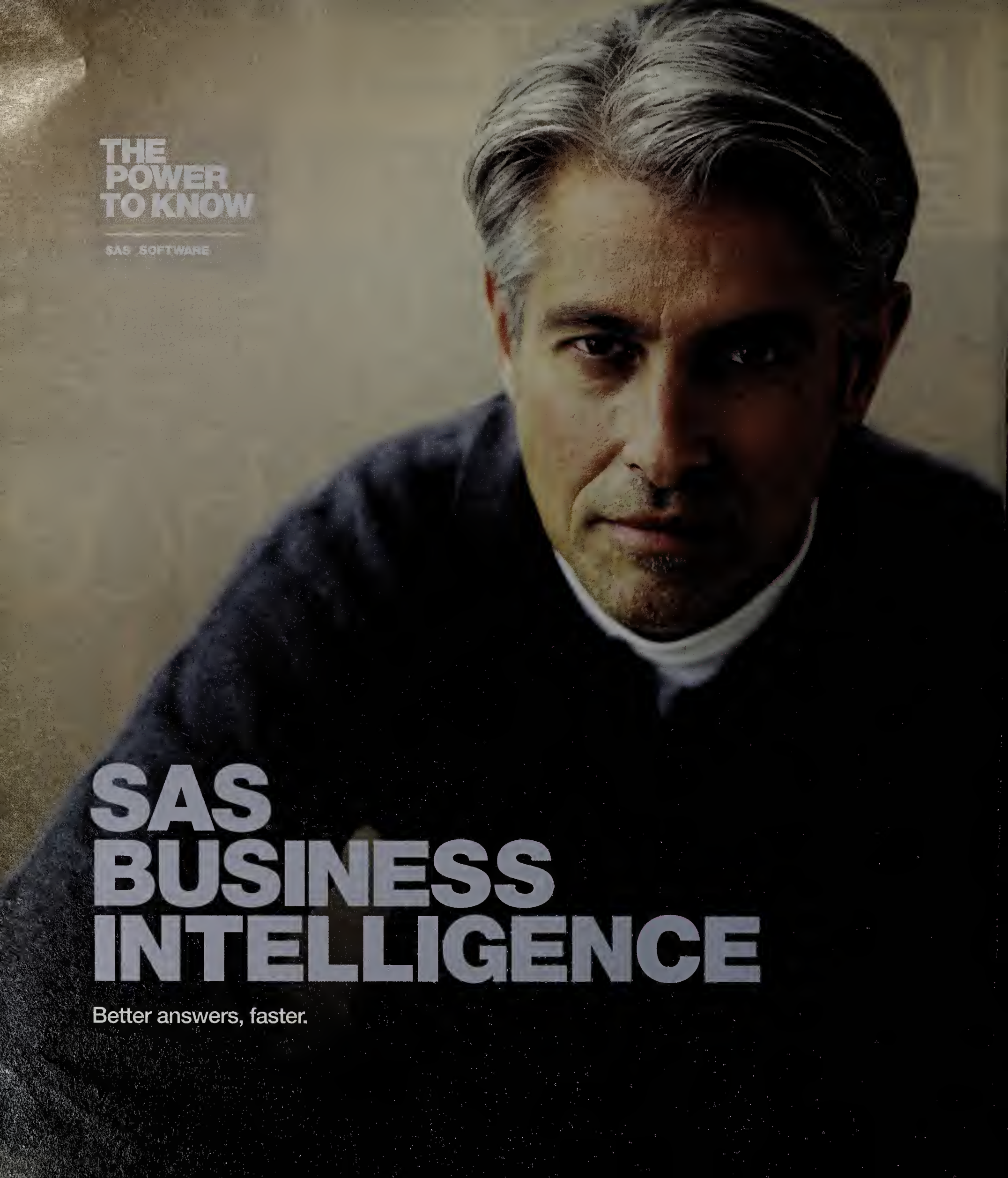
Diane Pencil sees things differently. The lead enterprise architect at Owens Corning sees little value in upgrading 12,000 desktops at the Toledo, Ohio-based building materials company. She says Office 2007's redesigned user interface, which replaces the current menu and toolbar structure with a contextual Ribbon bar, will require face-to-face and online retraining and is likely to cause an increase in help desk calls. Furthermore, she doesn't see a significant return on investment, despite the suite's many new features. "The things that are being added to Office aren't things that we've needed for a long time," she says.

IT organizations sizing up the new Office offering are weighing the benefits of a new user interface and new features against concerns about training, calls to the help desk, a new Open XML file structure and overall ROI.

"We have a new [user interface], new file formats. This is going to be one of the trickier migrations," says Michael Silver, an analyst at Gartner Inc.

Many IT professionals remain skeptical of the bottom-line benefits, according to a survey of 727 readers of *Computerworld* and "The Office Letter,"

Continued on page 34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Continued from page 31

an electronic newsletter for Office users. Nearly half of the respondents (46%) said they expect no change in worker productivity with the new suite, while 24% predicted that users will be more productive than they are using earlier versions of the applications suite.

The 190 survey respondents who were hands-on beta testers of Office 2007 have a brighter outlook: 43% said they expect productivity to increase.

IT professionals are most optimistic about new features in the Word, Excel and Outlook applications within the suite. "With the amount of e-mail we receive, being able to search in a quicker, more intuitive fashion is a great benefit. Outlook is where most people will gain the greatest benefit," says Michael Case, IT services director at Manchester College in Manchester, Ind.

The biggest challenge to deployment? "The Ribbon bar," Case says flatly, although he predicts that once users learn it, they'll be more productive. To familiarize users before a scheduled rollout to 1,200 of them next summer, Case plans to offer a combination of brown-bag lunch sessions, video training and in-house training programs.

Pencil says Excel's new support for larger spreadsheets will be useful to a small subset of users who build "really humongous spreadsheets" on a weekly basis as part of pricing exercises. Currently, those analysts must use third-party tools to manipulate that data.

Marshall likes Word's new live previews feature, which enables users to see how an attribute will look on selected text before it is applied. And he says the pop-up contextual Mini Toolbar, which lets users quickly apply commonly used attributes to selected text, is a "slick" time-saver.

Rhett Smith, principal at consultancy BioCIO LLC in New York, says that, from a developer's standpoint, Office 2007 is a big improvement. "Developing for previous versions is cumbersome and inconvenient," he says. "The development model for 2007 is much, much nicer."

That's a good thing, because some businesses may have to rewrite some of their custom programming for Office applications. Bob Fink, IT manager at Pacific Scientific Energetic Materials Co. (PS/EMC) in Chandler, Ariz., says Access 2007 won't work with Visual Basic 6 programs that were designed to run with the database. The same problem wasn't resolved in Office 2003 until Service Pack 1 arrived. "Backward compatibility is an issue," Fink says.

Migration Plans

Only 5% of the surveyed readers said they'll skip Office 2007. Most organizations see migration as inevitable. The only question is when. Timing depends on issues such as the total project cost and whether companies are still comfortable with an earlier version of Office. "A large portion just recently completed upgrades to Office 2003," says Kyle McNabb, an analyst at Forrester Research Inc. Because of that, he says most enterprises don't expect to move to Office 2007 before 2009.

Owens Corning is likely to migrate in 2007, but the timing has more to do with an internal restructuring than with compelling benefits. "We'll probably put it forward as one of those projects that will need to be done," Pencil says, but under normal circumstances, the company would wait. "If I had my druthers, we wouldn't be doing the upgrade anytime soon," she says.

At PS/EMC, Fink plans to start by upgrading a small group rather than all 360 users. "It will be piecemeal. If it goes well, we'll probably step up the deployment a little," he says, adding that he expects it to take users a few months to become fully proficient with the new version. "For my users that aren't well versed, Office 2003 was a shock to them, so Office 2007 will be a little intimidating," Fink says.

Jacob Jaffe, director of Microsoft Office, claims that the software vendor has listened to enterprise users who complained about insufficient training and support during the Office 2003 rollout and will have more resources available this time around. The new resources include the Office Migration Planning Manager, a tool that can scan machines for potential problems prior to an upgrade; the IT Resource Kit for deployment planning; and a dozen e-learning courses that were available online for free when the product launched last week. This time, resources will be available early, not 12 to 14 months after the Office release, Jaffe says.

Good training and support are critical, because most survey respondents said they think it will take days or weeks for users to become proficient with Office 2007. They said they plan

OFFICE ASSISTANCE *for the* Enterprise

With all of the changes in Office 2007, Microsoft is anxious to provide tools to make the transition as smooth as possible. Here are key training and support offerings, as well as highlights from the Migration Management Technologies tool suite.

- **2007 Office Resource Kit:** Tools to support installation, customization and maintenance of Office 2007.
- **Microsoft Office Migration Planning Manager:** Includes a scanning tool that inventories Office document types on client PCs and servers, then flags potential file-compatibility problems with Office 2007.
- **Microsoft Office Compatibility Pack:** Allows Office 2000, Office XP or Office 2003 machines to support Office 2007's Open XML format.
- **Interactive command reference guide:** Online resource for mapping Excel, Word and PowerPoint commands from Office 2003 to Office 2007.
- **E-learning courseware:** Microsoft offers 12 free courseware packages right out of the gate. Each lasts from 45 minutes to an hour. More courses are planned.

ROBERT L. MITCHELL

Migration Plans

Does your organization plan to adopt Office 2007?

Base: 727 IT professionals

YES! 37%

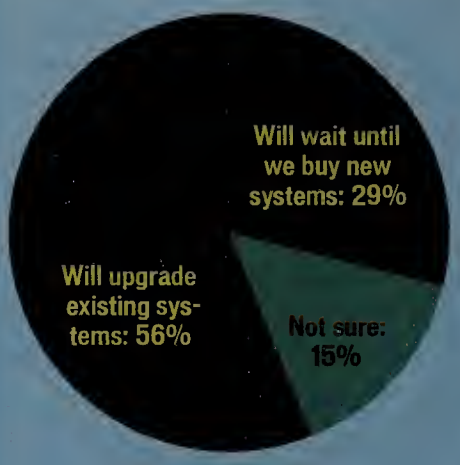
- In the next six months: 11%
- In the next seven to 12 months: 11%
- In the next 13-18 months: 9%
- After 18 months: 7%

DON'T KNOW: 19%

NO! 44%

- No plans now: 39%
- Skipping this version: 5%

Existing PCs or New Ones?



Base: 270 IT professionals at organizations planning to upgrade to Office 2007

Why Not?

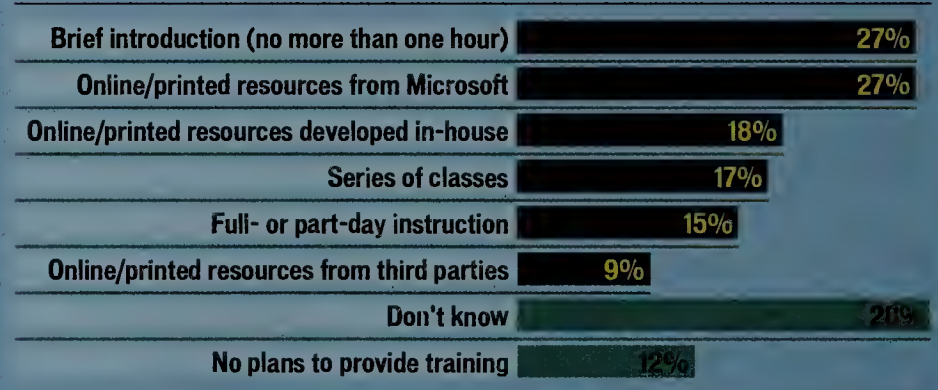
1. Already committed to Office XP or Office 2003
2. Software upgrade costs are too great
3. Features aren't sufficiently compelling
4. User interface changes are too dramatic; training issues

Base: 457 IT professionals at organizations not planning to upgrade to Office 2007

SOURCE: COMPUTERWORLD/"THE OFFICE LETTER" SURVEY, OCTOBER 2006

Training Plans

What type of Office 2007 training are you planning to provide?



Base: 270 IT professionals at organizations planning to upgrade to Office 2007; multiple responses allowed

SOURCE: COMPUTERWORLD/"THE OFFICE LETTER" SURVEY, OCTOBER 2006

to use a mix of training methods and materials to get users up to speed. While 36% expect training costs to come in under $100 per head, 27% predict that $100 to $500 is more likely.

Nearly one quarter of respondents (24%) cited cost as the major reason for not upgrading to Office 2007. Pencil is hoping to keep total project costs under $300 per seat, including $75 to $100 per seat for technician time.

But licensing costs are another consideration. "Because more than 36 months have elapsed since Office 2003 was released, some IT organizations that signed up for Microsoft's Software Assurance contract at that time will see their contracts expire without including the expected Office 2007 upgrade," says Gartner's Silver. "In some cases, they paid millions of dollars. Those people are not happy."

But Microsoft's Jaffe says he's "not hearing a lot of concern" about that. Software Assurance includes resources for things such as training and deployment, but "there is no guarantee that another product will ship in that time." Office 2007 is the version that didn't make that 36-month window, and Jaffe says users should consider the Office 2007 development cycle "an anomaly." But, he adds, "that's not a guarantee for the next release." Enterprise costs for software licenses are about 5% higher than for Office 2003, Jaffe says.

As for ROI, even those who say productivity will increase aren't sure whether that increase will be measurable. Geiger Brothers' Marshall says he's convinced that the new interface will allow users to complete the same tasks more quickly because they won't need to step down through menus to access buried functions. But he acknowledges that the time savings will be "hard to quantify." Owens Corning's Pencil says she doesn't think it will make a difference. "I don't think it's such a big deal to have people click down two or three levels," she says.

Brent Eads, director of information systems at Employee Technology Solutions Inc. in Chicago, says his experienced Office users revolted when given the Office 2007 beta. "Most were turned off by the new user interface — especially expert-level users," he says, adding that Microsoft should have included a "classic" user interface. The scope of change in Office 2007 made that less feasible, a Microsoft representative says, adding that it does offer the Interactive Command Reference Guide, an e-learning program that maps commands from the old user interface to the new one.

Microsoft claims that users could also become more productive by using features that were previously hidden and are now exposed, in the right context, in the Ribbon bar. Jaffe says that 80% of the features that users have asked for are in the version of Office they already own — "they just don't know how to get there." By exposing those functions, Microsoft hopes that users will discover and use them.

"Microsoft's claim is that Office 2007 makes it easier for users to create better-looking documents faster, which is a laudable goal," says Silver. "But for many IT departments I speak to, that's not one of theirs."

What might interest IT is tighter integration with Microsoft's collaboration platform, SharePoint Server 2007. Silver says most of his corporate clients that plan to move quickly to Office 2007 cite SharePoint as the primary reason.

"I like the interfaces with SharePoint 2007," such as synchronization between individual and team calendars, says PS/EMC's Fink, who is evaluating the product.

File Format Angst

The new Open XML file format is another area of concern. While the new format is open, more compact and less likely to be corrupted than Office's current binary formats, Office 2003, XP and 2000 users will need a compatibility pack to read the format. Plus, users on older versions will need to use Explorer to convert files back and forth. "We're trying to do everything we can to avoid the angst we caused with Office 97," says Jaffe.

Nonetheless, the transition will be challenging. Jaffe says even organizations with no plans to upgrade to Office 2007 should download the compatibility pack, but Marshall isn't sure that will happen. Geiger Brothers exchanges documents with hundreds of vendors. "A lot is going to depend on what format they will accept," he says, but the current plan is to use group policy to force all documents to be saved in Office 2003 format "so we don't have to deal with the compatibility issue during deployment."

Jaffe acknowledges that the transition to a new format might be difficult. However, he argues that "in terms of where customers want to go in the future, XML format is the only way we can take them there." But for now, says Gartner's Silver, "the least-risk option is to stick with the binary formats for a while."

Mixed Environments

Many organizations are currently using two or more versions of Office, but Office 2007 is such a radical departure that they may face an even more confusing support environment. "Once they start the migration, they will want to have all users on Office 2007 quickly, versus having a mix," says Silver.

"I would expect that we'll see much less of the mixed environments going forward," says Jaffe. That would certainly benefit Microsoft, which has been frustrated by how reluctant organizations are to upgrade their users to the newest versions of Office. But a broad migration also adds to the cost — particularly if only a small subset of users truly needs the new features.

Ultimately, planners may discover that Office 2007 is as much a sales effort as a technical upgrade. "Many [IT managers] we've spoken to believe they need to define strong internal marketing programs to communicate the value of the new client [to] the employee population," says Forrester's McNabb.

And once users are up and running, Pencil doesn't expect them to take advantage of productivity-enhancing new features without a push. "If you want people to use more features, you have to show them how to use them. It's a sales job. You really have to bang the drum all the time, saying, 'Office can do that, let me show you how,' " she says.

Marshall acknowledges that 75% of his staff will continue to do "the same kind of work" once Office 2007 is deployed. But he thinks Microsoft is going in the right direction. "This is what they should have been doing with Office all along," he says.

REVIEW

THE LOWDOWN on Office 2007

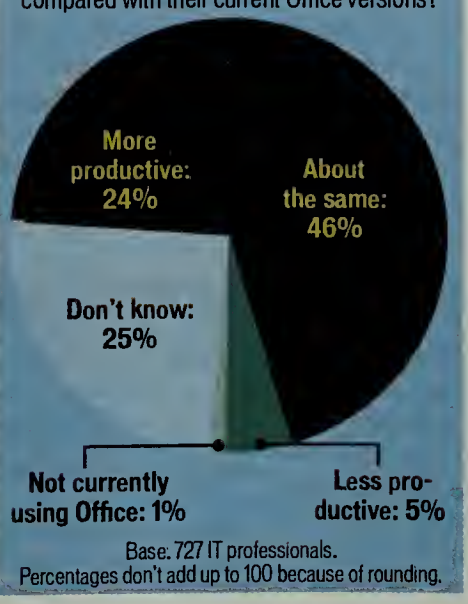
In a review published on Computerworld.com, *freelance writer* **Richard Ericson** *covers the pros and cons of the new features in Office 2007, as well as the related SharePoint Server. The following is a small excerpt from the full online review, which is available at* www.computerworld.com/software.

EXCERPT **Keep in mind that if you move to Office 2007, your training materials will become obsolete (or unreliable at the very least).** Likewise, the many tips found on Web sites and in books and manuals will be out of date. That could make for a serious setback in terms of training and productivity, at least in the short term. The trade-off will be if users start to find (and use) features they knew were in the product but couldn't find before, perhaps lowering the cost of support. The unchangeable user interface also benefits your organization's help desk, since icons will be consistently placed on everyone's desktop (with the exception of the Quick Access Toolbar, of course).

If collaboration and file sharing are on your mind, SharePoint Server and its integration with Office 2007 are impressive. That's the reason to upgrade. SharePoint installation is strictly for experienced IT pros; this isn't a program a small or midsize business should install on its own. Once installed, however, the ability to create dynamic sites – and for users to benefit from these tools and create their own My Site pages – is extraordinary. Users can be trained to work with shared libraries, calendars and other content in very little time. That's where the payback lies.

Productivity Predictions

Once users climb the learning curve, what effect will Office 2007 have on productivity compared with their current Office versions?

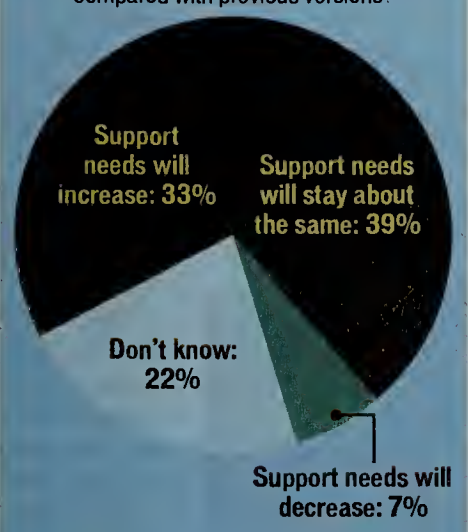


Base: 727 IT professionals.
Percentages don't add up to 100 because of rounding.

SOURCE: COMPUTERWORLD "THE OFFICE LETTER" SURVEY, OCTOBER 2006

Calling for Help

How will Office 2007 affect the help desk, compared with previous versions?



Base: 270 IT professionals at organizations planning to upgrade to Office 2007.
Percentages don't add up to 100 because of rounding.

SOURCE: COMPUTERWORLD/"THE OFFICE LETTER" SURVEY, OCTOBER 2006

Stopping Data From Flying Off to Google

New desktop PCs come with Google Desktop installed. So, what could be the problem with such a useful program? By C.J. Kelly

SECURITY MANAGER'S JOURNAL

MY STATE agency's intrusion-detection systems were showing some undesirable activity on our network. Upon investigation, we found that several desktop systems were communicating with Google via Google Desktop. I ran a network security scan and found at least 50 computers set up to do this. How was that possible?

All 50 were new Dell machines. I called down to the lab where desktop system images are created. A tech answered, and I asked him if he knew why Google Desktop was installed on the new systems. "Yes," he said. "The new Dell systems came with it installed. We thought it was a useful tool, so we included it in our standard image."

The question that immediately reverberated in my head was, Why weren't the security implications considered? What I said was, "This is a security problem for us, and we have to uninstall it as soon as possible. I'll put together a meeting."

Problem Caught in Time

The good news is that I caught this security lapse before all agency desktops were replaced in our current system refresh. In fact, since desktops are being replaced about 50 at a time, I had caught it pretty early. The realization that the problem could have been worse cheered me up a bit.

Admittedly, the person who decided to leave Google Desktop on the new computers had no reason to suspect that the program could cause a serious security vulnerability. The root of the problem lay in our quality assurance processes. And that means that if I was going to be irritated at anyone, it would have to be me.

I am in charge of all IT processes and had failed to make sure that we had a certification process for new systems. I was focused on auditing the environment. And in the meantime, I made assumptions — one of the surest ways to get myself into trouble. I assumed that the image had not changed. I assumed it would not change. I assumed I would be asked before someone made a change. No way around it, this was my fault.

Several staffers came knocking at my door, having heard about the situation and wanting to know why it was a big deal. I printed out some articles on Google Desktop for their edification. I had filed in my brain the factoid "Google Desktop = security vulnerability" at least a year ago.

But apparently, my staffers don't read the security news. I don't want to make them do that; they work hard as it is. But I wondered whether I should put together for them highlights of the latest in security vulnerabilities on a weekly or monthly basis to prevent this kind of thing from happening again.

If this feature were enabled by default, there would be hell to pay.

So, what is the big deal about Google Desktop? At Google's *desktop.google.com* site, it says, "Google Desktop gives you easy access to information on your computer and from the Web. It's a desktop search application that provides full text search over your e-mail, files, music, photos, chats, Gmail, Web pages that you've viewed and more."

That all sounds pretty good, huh? But, read on:

"Removing deleted files from search results — Some users like the fact that Google Desktop saves cached versions of deleted files in case they need to retrieve them. But we know this isn't for everyone. Don't want to see deleted files in your search results? Just enable the 'remove deleted items' option in your Desktop preferences."

It Gets Scarier

In and of itself, this isn't scary (even though the option should be disabled by default — in Windows, you can always retrieve deleted files if you have the right utilities). So far, we have an application that indexes everything on our users' computers so they can search them and find information quickly. That is a totally cool feature in an age when we are inundated with so much information we can't think straight. But there's more:

"Search Across Computers enables you to search your documents and viewed Web pages across all your computers. For example, you can find files you edited on your desktop from your laptop. To activate this feature, you will need a Google Account (the same log-in you use for Gmail, Orkut or other Google services). Files accessed on your computer after you enable Search Across Computers will be searchable from your other computers.

"To search your other computers, you must also install Google Desktop on them, as well as enable the Search Across Computers preference using the same Google Account on each one.

"In order to share your indexed files between your computers, *we securely transmit this content to Google Desktop servers located at Google*. This is necessary, for example, if one of your computers is turned off or otherwise offline when new or updated items are indexed on another of your machines. We store this data temporarily on Google Desktop servers and automatically delete older files, and your data is never accessible by anyone doing a Google search."

The italics are mine, although you probably could spot the security problem on your own.

The good news is that this feature isn't enabled by default. If it were, there would be hell to pay. It would allow our users who have Google Desktop and Gmail accounts to share data across the Google servers and wherever else they happened to log into a computer — and that could include data protected under the Health Insurance Portability and Accountability Act.

As it turns out, only one of our users had a Gmail account, and the Search Across Computers feature had not been enabled. But when I think about the thousands of computers using this feature and the quantity of data being cached by Google, I get the creeps.

WHAT DO YOU THINK?

This week's journal is written by a real security manager, "C.J. Kelly," whose name and employer have been disguised for obvious reasons. Contact her at mscjkelly@yahoo.com, or join the discussions in our security blogs: **computerworld.com/blogs/security**

To find a complete archive of our Security Manager's Journals, go online to **computerworld.com/secjournal**.

SECURITY LOG

Parents Appeal Hacking Expulsions

The parents of two high school students in York County, Pa., are fighting the expulsion of their sons for allegedly breaking into the school district's computer system. The appeals filed against the Central York School Board claim that the school district is violating the boys' constitutional rights by expelling them.

More Data Stolen

Two computers stolen from a Jeffersonville, Ind., health center last month contain data that may include names, addresses, birth dates, Social Security numbers, and medical and billing information for more than 7,500 women. The health center has a state contract to manage the Indiana Breast and Cervical Cancer Program. Both the computers and the files containing the information are password-protected.

Initiative to Tackle ID Governance

Oracle Corp. announced the Identity Governance Framework, an open initiative to improve the management and protection of identity data as it flows across applications. Several vendors have already reviewed a draft of the framework and plan to help develop full specifications.

Firm Faces Fine for Software Glitch

A British company may face a fine of nearly $2 million after a software problem caused the London Underground to shut down during rush hour last month. New software uploaded by Metronet Rail over a weekend contained a revised timetable, causing delays that lasted a week.

If you buy a storage system now, why not choose one that can also address your data needs later? Take the IBM System Storage™ DS4200 Express. It scales from 1TB to 56TB and anywhere in between[1] – more than some of its biggest competitors.[2] It's also more compatible with more operating systems, giving you a simple and cost-effective way to grow.[3] Because with IBM, innovation comes standard.

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BRIEFS

Unisys Unleashes Dual-Core Servers

■ Unisys Corp. last month expanded its ES7000/One enterprise server line with new, less expensive models that are built with Intel dual-core Xeon processors. The new models, previously code-named Tulsa, are the 7110M, 7120M and 7140M. Unisys said prices are up to 35% lower than those of existing models in this line. Pricing ranges from $29,000 for a four-processor system to $350,000 for a 32-processor system. The systems are available now.

Appliance Finds Risky Messages

■ InBoxer Inc. in Concord, Mass., last week announced the InBoxer Anti-Risk Appliance to help companies quickly identify risky e-mail messages. The appliance can also monitor e-mail traffic to ensure compliance with government regulations and laws such as the Sarbanes-Oxley Act. The Presearch software in the appliance analyzes each message for 70 of the most common risks and for additional criteria defined by the user, the vendor said. The appliance can also be used to find messages connected to investigations into reports of identity theft, harassment or privacy breaches. Available now, the combined software and hardware appliance starts at $5,000.

Kyocera Unveils Color Printers

■ Kyocera Mita America Inc. last week announced two high-capacity, workgroup color printers with features designed for corporate users. The FS-C5015N printer, which retails for $1,270, and the FS-C5025N printer, which retails for $2,013, each have an Ethernet interface, a 500-sheet paper drawer and a 100-sheet tray for multiple paper formats. Both devices feature 600-dpi image quality, have a standard print memory of 128MB and can be configured with an optional 40GB hard disk drive, the vendor said.

DAVID STROM

Why Bluetooth Is Still a Pain

BLUETOOTH products have a certain cachet. They're sexy and smart-looking, they're small, and they can be fun to use. But supporting them from an enterprise IT perspective can be a real toothache and may require some significant extractions, or at least careful planning.

DAVID STROM is a writer, editor, public speaker, blogging coach and consultant. He can be reached at **david@strom.com**.

Bluetooth is short-range wireless, meaning it covers a range of about 25 feet. Its most popular implementation has been in hands-free headsets for cell phones, and indeed there are dozens of models to choose from, some of which are quite good. But if you want to do more than have a cute headset for your cell phone users, you'll quickly find that there is no real standard. Sure, there are plenty of phrases that look like standards. Just take a look at this acronym soup:

- A2DP (Advanced Audio Distribution Profile)
- AVRCP (Audio/Video Remote Control Profile)
- BIP (Basic Imaging Profile)
- OPP (Object Push Profile)
- HSP (Headset Profile)
- HFP (Hands-Free Profile)
- GOEP (Generic Object Exchange Profile)

The problem is that not every Bluetooth product supports every profile. Moreover, some of them — like A2DP, which is used to send stereo sound to a headset — are still being worked on and are particularly problematic.

And that's just the start of how hairy Bluetooth is. Some Bluetooth USB dongles — not to mention the built-in Bluetooth support in desktops and laptops — don't support all the various profiles, so you could have a Bluetooth keyboard that doesn't talk to your PC but a headset that does, with the same dongle. Or you have a Bluetooth keyboard that installs software that gets in the way of a Bluetooth headset because the two devices support different profiles. This isn't yet a consumer-friendly place to be, let alone an enterprise-IT-friendly place.

The next challenge comes when you pair the same Bluetooth part with multiple devices, such as cell phones and computers, or you want to do more than have a remote headset. Then you have to rely on the PC makers' different implementations of Bluetooth protocol support. On my year-old Dell laptop, the built-in Bluetooth adapter was almost worthless and could barely connect with anything. After looking at more than a dozen products, I found that many of them worked fine as long as I used the Bluetooth USB dongle that came with each product.

When I installed several different dongles on my PC — which you might want to do when testing a bunch of different products — the computer would get confused because the different Bluetooth support services step on one another. The support services also bury themselves deep in the Windows registry, which means getting rid of them would require difficult surgery in the registry, so I ended up reimaging my PC to restore it to its pristine state.

This isn't yet for the general user, since the words "reimage your drive" may strike fear into their hearts. I recommend that you find a USB dongle that will support the widest collection of devices and stick with it as your corporate standard.

On some products, I tried four or five USB adapters that weren't recognized. A Lexmark P450 photo printer didn't even recognize one that was on the manufacturer's recommended list. It was using a different firmware version, I guess. But I shouldn't have to guess, and neither should your users.

The third problem with Bluetooth has to do with the miserable support for it in Microsoft's Windows XP. And the situation isn't much better with Mac OS and Linux. Many laptop makers have substituted support software from Widcomm/Broadcom or others because the built-in stack from Microsoft does so little and supports so few Bluetooth products.

So an obvious step here is to carefully test the various stacks and settle on one that you can deploy corporatewide. Some stacks come with USB dongles, so again, standardizing on the right combination can really help reduce your support burden.

You'll have to experiment with various combinations of stacks, dongles and Bluetooth devices until you find the right mix.

In many respects, the state of Bluetooth today is akin to where Ethernet was back in 1990 or Wi-Fi around 1992: a series of incompatible technologies, poorly adopted protocols and different implementations that will conflict with one another when more than one thing is installed on the same PC.

I don't want to paint all Bluetooth products with the same brush; there are some great products out there. I just don't want to have to reimage my drive when I want to switch between them. ▸

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IT MENTOR

Talking the Walk

If you want to speak the language of business, says Tom Bugnitz, talk about the services IT provides to the company rather than the activities it executes to provide those services. Here's how it's done. **PAGE 42**

OPINION

Expectations and Violations

When things go wrong on a project, people look to problems with products and processes. But that's seldom where the real difficulties lie, says Paul Glen. At the first sign of trouble, look for strained relationships. **PAGE 44**

Moving Target

The role of the information security professional, like the risks it seeks to mitigate, is continually evolving.

By Mary K. Pratt

ANTHONY FREEDA

BRIAN HADDOCK, Patricia Myers and Marjan Rajabi started their careers in very different places: Haddock repossessed cars, Myers worked in banking, and Rajabi was an electrical engineer. Now, however, they share a common link: They're all information security professionals.

Such a diversity of backgrounds might seem odd, but this emerging field is attracting a variety of workers who are drawing on their prior business experience — whatever it might be — to develop the kind of technological safeguards and corporate policies that keep companies' information assets secure.

Through self-directed study and on-the-job learning, Haddock, Myers and Rajabi each earned a certification that indicates both broad knowledge and practical experience as an information security professional. But while many have taken that path in the recent past, the profession's maturation is raising the bar on job requirements in the field. Hiring managers say they still want to see certification, but they also look for an IT degree — ideally one focusing on information security — as well as business acumen.

"There are great security people who didn't come in with a degree, and I don't take someone out of consideration if they don't have a degree. But we're starting to see much more emphasis on professional training and college," says Jim Molini, who holds a CISSP designation (see box, page 40). Molini is deputy program manager for enterprise services at The Mitre Corp., a not-for-profit government contractor with headquarters in Bedford, Mass., and McLean, Va.

These changing standards don't come as a surprise to industry leaders such as Myers, who holds the CISSP-ISSMP certification and is chairperson of the (ISC)² board of directors and the information security manager at a large specialty retailer.

The nonprofit (ISC)², or International Information Systems Security Certification Consortium, has certified more than 42,000 information security professionals in 110 countries. The 17-year-old organization issues the CISSP and several related designations.

In 1986, Myers was working in the finance division of a bank when she was tapped to develop an information security program. She joined the Information Systems Security Association (ISSA), took security-related classes and reached out to colleagues doing similar work. "At that time, there were no colleges and universities that were offering courses," Myers says. "You learned by taking [noncollege] courses, finding a good support group of people who already knew the business and attending special conferences."

What a CISSP Knows

(ISC)² issues the Certified Information Systems Security Professional based on knowledge in the following 10 domains:

- Access control
- Application security
- Business continuity and disaster recovery planning
- Cryptography
- Information security and risk management
- Legal, regulations, compliance and investigations
- Operations security
- Physical (environmental) security
- Security architecture and design
- Telecommunications and network security

What It Takes

It takes more than certification or a college degree to be a successful information security professional. Here are some other typical requirements, according to those in the field:

- A skeleton-free closet. No felonies or convictions on charges that could be considered a breach of trust, and particularly no history of hacking or other computer crimes.
- An analytical mind that can recognize and rate risks and threats.
- A solid understanding of IT.
- A well-rounded knowledge of business processes.
- The ability to negotiate, sell your ideas on security and get people on board.
- A passion for security.
- A can-do attitude.

Security's Alphabet Soup

What do all those letters mean? Here are some certifications in the information security field:

CISSP: Certified Information Systems Security Professional

ISSAP: Information Systems Security Architecture Professional

ISSMP: Information Systems Security Management Professional

ISSEP: Information Systems Security Engineering Professional

CAP: Certification and Accreditation Professional

SSCP: Systems Security Certified Practitioner

CPTS: Certified Penetration Testing Specialist

CPTE: Certified Penetration Testing Expert

CISA: Certified Information Systems Auditor

CISM: Certified Information Security Manager

– MARY K. PRATT

Today, however, Myers says companies are increasingly looking for professionals who have more formal training and experience in information security -- a trend that follows the rise of reputable training and academic programs such as those offered by (ISC)² and some colleges. She points out that some schools are now even offering doctoral degrees in "information assurance."

These evolving standards correspond to the broadening responsibilities of information security professionals, says Bill Hodge, who holds the CISA and CISSP certifications and is the owner of W.L. Hodge Consulting LLC, a Knoxville, Tenn.-based firm focusing on information systems governance. "We define who or what has access to what information when," Hodge says.

Information security professionals once installed firewalls, password protections and encryption programs; now they manage them. But they also have to deal with the complex applications that help companies comply with a growing list of federal and state regulations aimed at protecting sensitive data. These regulations include the Gramm-Leach-Bliley Act, the Health Insurance Portability and Accountability Act and the Sarbanes-Oxley Act.

"That's absolutely driving the need for these professionals," says Audrey Pantas, chief information risk officer at Xerox Corp.

Winding Roads

Hodge got into information security through his work as an accountant, drawing on the IT experience he had gained as a help desk worker in college. He says didn't like tax work but enjoyed developing software. So he was happy when he landed a job at PricewaterhouseCoopers doing IT audits, where he examined the controls in companies' information systems. That led to looking at systems overall, giving him experience in the 10 domains required for CISSP certification.

Hodge says holding the certification is crucial. "If you want to be in the industry, it's great to have a level of experience. But to prove you have the level of knowledge, you have to have the certification," he says. Hodge earned his CISSP designation in 2005.

Brian Haddock, CISSP, a security engineer at Magellan Health Services Inc. in Avon, Conn., agrees. With so many people coming into the profession from other fields, certification shows that you have enough education and experience to do the job, he says.

Haddock repossessed cars and worked as a private investigator before getting into IT in 1997, when he took an entry-level technical position. Drawing on his prior experience as a PI, he immediately foresaw that companies would need security people.

"At the time, many companies were coming online and using communication technologies for their business," Haddock says. "I knew it was a matter of time before these businesses would have to learn to use this technology in a secure manner. I knew that's where my niche would be."

He educated himself, grilling colleagues for lessons on IT systems, the Internet and security. He practiced his emerging skills on his home network, and he took a CISSP certification prep course at Georgetown University.

Despite all that, Haddock says he still felt he needed actual certification to verify all that he had learned, so he earned it in 2003. He says he expects future information security professionals to have even stronger credentials.

> **"I knew it was a matter of time before these businesses would have to learn to use this technology in a secure manner. I knew that's where my niche would be."**
>
> **BRIAN HADDOCK,** SECURITY ENGINEER, MAGELLAN HEALTH SERVICES INC.

"Going forward, I don't know how you're going to get into information security without a college degree and an understanding of business," says Haddock, who adds that he's enrolling in college-level business classes to beef up that area of his résumé.

Pantas agrees that information security experts need strong technical skills and business knowledge as well as degrees and certifications. She started her career as a programmer, moving up through the IT ranks as she earned a bachelor's degree in organizational management and an MBA. She worked on Xerox's disaster recovery plan after the Sept. 11 attacks, a role that helped her land her current job in 2003.

As much experience as she has, though, Pantas says she wants to earn CISSP certification. "Certification in itself is valuable," she says, explaining that the CISSP designation proves that the holder has obtained the required experience and expertise. Plus, security professionals are required to continue learning in order to hold on to the certification, a point not lost on executives.

Despite that, Pantas says she doesn't make certification a requirement for job applicants -- though she does prefer it. If they've got the right IT background and business skills, she says, "it's easier to teach them the security."

Tougher Requirements

But some see the door closing for noncertified candidates. Companies that once hired information security professionals who didn't hold degrees or certifications are now emphasizing or even requiring certification. "When I see a certification, I see they've really gone a few steps beyond what others in the profession might have done," says Mitre's Molini. Employers are also increasingly seeking people with college degrees or concentrations in information security.

In response, DeVry University's Keller Graduate School of Management offers an MBA with concentrations in security management and information security, as well as a graduate certificate in information security. Likewise, Colorado Technical University has a master's in management with an information systems security concentration. And Iowa State University offers a master's in information assurance.

Such education and training are required on top of standard IT skills to land a job today. Candidates must have solid IT abilities, business acumen and interpersonal skills, such as the ability to communicate and negotiate.

And there's more. "It's a mind-set," says Rajabi, the electrical engineer who now holds a CISSP and is IT risk management and security service manager at Farmers Insurance Group of Companies. "It's understanding that security has to be adequate and reasonable; you have to value security but understand your risks and not be too paranoid."

"There will be a strong demand for people who have the education, the experience, the certification and show true professionalism," says Dorsey Morrow, CISSP, ISSMP and director of legal services at (ISC)².

It's a tall order, but the payoff is big. Several information security professionals confirm that salaries in the field can easily exceed $100,000 annually.

Pratt is a Computerworld *contributing writer in Waltham, Mass. Contact her at marykpratt@verizon.net.*

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Talking the Walk

■ BY TOM BUGNITZ

AFTER ALMOST 40 YEARS in IT (sadly, my first programming experience was on a computer with glowing vacuum tubes), I remain surprised that we are still talking about how IT people — whether they be the kids on the help desk, the CIO or anyone in between — can better communicate the value of what they do for the business. We are still trying to figure out how to credibly tie IT dollars to some bottom-line result.

There are many theories about why IT can't seem to crack the business-talk code, but what I have seen in many businesses is that the conversation between business and IT is usually about what IT does, rather than what IT does for the business. While that sounds simplistic and obvious, it carries a subtle message: IT must talk about the services it provides to the business, rather than about the activities it executes to provide those services.

The conversation takes place in many different ways and venues, but it usually revolves around dollars: the cost of project development, the annual budget, the amount business is charged for IT services. This is as it should be. IT spends company dollars and management time and should explain its value in terms of how much of those resources it uses, how it uses them and what the business gets in return. What's wrong, though, is that IT talks about dollars in categories that don't relate to the business and can't be used by business to make good resource-allocation decisions.

I know of a company whose IT group "bills" all of its project development services to business customers in categories such as specification delivery, configuration planning, project planning, acceptance testing and program development. To IT, a project is a collection of these activities. For ongoing applications, IT charges for data storage, network data transfer and CPU

usage. An application uses resources in that way, so that's how IT bills.

Those categories are great for managing and monitoring IT, but they are useless for explaining the value that IT delivers. Business people view those categories as irrelevant and incomprehensible. They are paying for project delivery that achieves a business result and applications that support a business process. They don't care about configuration planning or CPU usage; they care about customer access to account data or sales team access to customer information. The focus has to be on what IT is doing for the business, not the activities IT carries out to do it. IT needs to stop thinking like a technology supplier and start thinking like a business-focused service provider.

As part of that transition, IT needs to communicate costs and impact in business service terms. **Here are four steps, to be implemented over a number of budget cycles, that your IT group can take to make this transition.**

SAY WHAT?

What IT Says	What Business Needs to Hear
99.999% uptime.	Customers can place orders and make payments 24/7.
Business growth projections will force an accelerated server-farm upgrade program and a 20% increase in the server budget.	Systems will handle all new and existing customers while reducing IT costs per customer by 10%.
This project will transition customer-facing systems to a Web-based architecture.	This project will provide anytime, anyplace access to all customers for sales, service, payment and product inquiries.
We're adding bandwidth to the WAN to support anticipated network traffic growth in branch offices.	Your branch offices will have the same tools and data to support the client as people at headquarters.
The new data warehouse will provide faster access to integrated corporate data.	This investment will reduce execution time for new marketing programs by four to six weeks, with improved customer targeting.
We need to upgrade the mainframe from 370 to 740 MIPS by 3Q 2007.	Without an increase in processing power, a 15% increase in orders will delay order processing and will increase product delivery times by three weeks.
The virtual server architecture will provide greater system reliability and easier capacity matching as transaction volume increases.	By investing $1 million in new servers and operating software, the business will be able to handle sales volume fluctuations of up to 100% with no effect on customer service or product delivery schedules.

1. Adopt a cost reporting and management structure focused on five business service portfolios:

■ Application services — the business support provided by ongoing applications. This portfolio includes all the applications the business uses, with enough granularity that the business can make decisions about individual applications. Some companies I know have used the applications themselves as the line items, such as Sales Tracking or Customer Activity Reporting. Others have combined applications into the business process that the applications support, like Order Entry or Sales Tracking and Fulfillment. The portfolio items should be intuitive to the business people dealing with them.

■ Infrastructure services — the technical services that support the business (e.g., e-mail, remote network access or wireless access).

■ User services — the business user support provided (e.g., help desks).

■ Management services — the internal IT organizational services (e.g., IT strategic and annual planning, budgeting, IT human resources and IT procurement). This portfolio isn't critical to the business, but it is the "home" for all of the IT dollars the company spends. It allows IT to communicate its internal activities to the business and sets the stage for helping IT and the business connect their management processes, like connecting IT procurement to the business units' IT capital budgets.

■ Project services — those that deliver new business capability. The line items here are the new projects that IT is developing for the business, like a sales forecasting system, customer data analysis and assessments, or expanded customer Web access.

With these portfolios as the base, you can stop talking about "charges for data storage" and start talking about the cost of operating an application, how well it works, how effectively it supports the business (or gets in the way) and how well IT supports the business by running the application. It's no longer about the cost and amount of individual technical resource use; it's about delivering the application to the business in a way that allows the business to use it for a positive business result.

Equally important, you need to recast the IT dollars into those portfolios so that 100% of that money lives somewhere within them. You want to change the cost and budget discussion from one of dollars for server upgrades to one of necessary service levels to keep the supply chain flowing, the call center functioning efficiently and the business analytics providing great intelligence about market shifts — and the costs of maintaining those levels. You also want to be able to examine every dollar of IT spend in a business service context, so you need to put every dollar into the portfolios.

Note that 100% accuracy isn't necessary; 80% is good enough to start. What's important is to do it in a credible way as a starting point.

2. Assess the performance of each service portfolio – both cost and impact – in business terms. This means assessing business and strategic alignment, service level and quality, responsiveness and functionality, and technical and business risk. It's not enough, and not even relevant, to know that an application is available 99.999% of the time. That's the technical perspective.

What's important is that you know how much the application really costs the business, how widely it's used, how much the business depends on it, the quality of the functions and data, and the technical and business risks the application carries. Taking the application services portfolio as an example, you can ask questions such as: How dependent is the business on our five most expensive applications? What are the quality levels of our five most critical applications? If any are low, what are we doing about that? Are there low-quality applications that we don't depend on? Can we get rid of those and spend the dollars elsewhere? Answering these kinds of questions gives you a definition of the business impact of each of the services.

3. Budget IT in business service terms, in the five service portfolios. Budgeting typically happens in accounting terms (salaries, training, hardware, software and licenses). You need to work with the business to budget based on the service levels needed from each portfolio, the infrastructure services that will result from that need, the risk mitigation required for critical applications, etc. Business people don't care about the training budget; they care about what it will cost to run and support their business applications. Budgeting in the five portfolios is the basis for that discussion.

4. Charge back IT to business units in service-to-business terms. This means establishing the chargeback scheme in terms of the business use of each of the services (from charges for running the application itself to charges for business transactions, such as each order processed, each customer inquiry through the Web and each sales order received), rather than in traditional resource-utilization terms (like CPU time, disk space charges or network traffic charges). Charge for services as seen by the business units (the "demand" for IT services), not as viewed by the IT delivery organization (the "supply" of technology). While something like the ITIL Service Catalog may be useful to you in building up the IT cost pools as the basis for figuring out the business service charges, it's not the way the business views the services it buys, so it's ineffective as a chargeback framework.

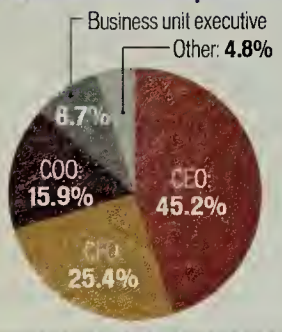
Because this is a large transition for any organization, you should make it in small steps spread over two to four budget cycles. In the first budget cycle, start by identifying and assessing the line items in the portfolios, including a first cut at the actual cost for each line item. During the second cycle, use that data as input to the "traditional" budget process and categories and to the strategic planning process for the following year. By the third cycle, you'll be comfortable with the business service approach and will have developed a closer relationship with the business as a result.

Bugnitz has served in IT jobs at all levels, from printer operator to director of computing and telecommunication services at Washington University in St. Louis. He is a senior consultant at Cutter Consortium in Arlington, Mass., and president of The Beta Group in St. Louis, Mo. Contact him at tbugnitz@cutter.com.

QUICK HITS

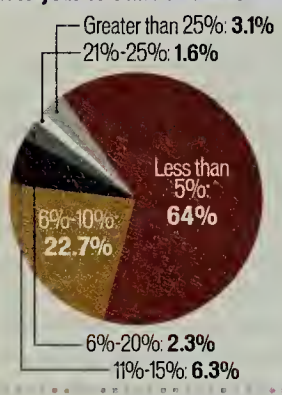
IT Employment

Who does the CIO report to?

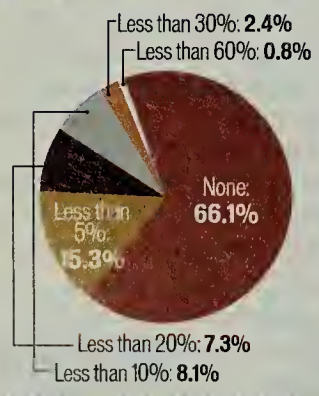


How does your IT head count for 2006 compare with 2005?

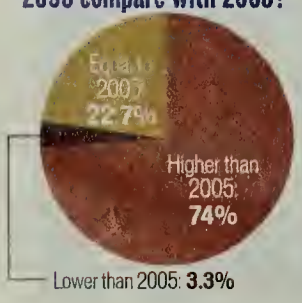
What is your IT staff turnover rate?



What percentage of the 2006 IT budget is allocated for offshore outsourcing?



How do IT staff salaries for 2006 compare with 2005?



SOURCE: SOCIETY FOR INFORMATION MANAGEMENT IT TRENDS SURVEY, JUNE 2006
BASE: 139 IT PROFESSIONALS

PAUL GLEN

Expectations and Violations

AS A CONSULTANT, I regularly get calls to help rescue struggling projects. These rocky initiatives usually involve at least a million dollars of direct cost, if not tens of millions, but more important, future business prospects and personal careers are often at stake.

The managers involved in these projects have taken substantial personal risks to sell some senior executives on the idea that this thing can be done and that they can deliver it.

As often as not, multiple companies are involved in these efforts. By the time I arrive, project sponsors, CIOs, project managers, technical staffs, consulting firms' account managers, software vendors, hardware suppliers and independent contractors are all standing in a circle pointing fingers of recrimination at one another. Sometimes it seems that as a species, we didn't really evolve to do this sort of work. Nature surely would have provided more than 10 digits for casting blame.

By the time clients get around to calling me, they've usually gone through a few stages of revelation.

The first stage is frequently initiated by a missed deadline. The project is trundling along, with most everyone at least guardedly optimistic about its prospects, and then some major deliverable either doesn't show up as scheduled or is bypassed completely. Maybe the requirements document is never quite done or perhaps the design documentation is completely abandoned, but coding forges ahead anyway. Early optimism gives way to concern and determination not to let things get out of hand.

This first revelation precipitates a series of urgent meetings to review the status of and make corrections to the project plan. Dates are adjusted. Tasks are shuffled. Scope creep may be constrained. But rarely is there a fundamental re-examination of the premises on which the project was founded. Even more rarely are the human relationships within and surrounding the project examined. Consideration is limited to the product and process of the project.

PAUL GLEN is the director of the Developing Technical Leaders Program (*www.developingtechnicalleaders.com*) and author of the award-winning book *Leading Geeks: How to Manage and Lead People Who Deliver Technology* (Jossey-Bass, 2002). Contact him at **info@paulglen.com.**

Sometimes the first stage of revelation gets repeated through various incidents before the second revelation appears.

It takes another type of event to elicit this second stage. Sometimes customers complain about the project approach, the cost, the product or the service. Sometimes key personnel remove themselves from the project, quit their jobs or feud with one another. Sometimes contractual relationships are opened for renegotiation.

These second events reveal that the problems extend beyond the facts of the project to the human and business relationships among people and organizations. It becomes clear that feelings have been hurt, mutual expectations have been violated and relationships have been strained, broken or severed. And these problems can't be resolved with schedule changes, plan revisions or budget extensions.

But managers usually respond to the second type of revelation in the same manner as they do to the first type. Planning ensues, but the shredded relationships may prevent replanning, or the animosity keeps resurfacing. More and more new problems appear, or things settle into a continual state of crisis.

Eventually, someone recognizes that human problems can't be resolved with money, time or scope changes. Doing the same thing over and over is not going to lead to success. That's when I get the call.

To avoid reaching this sort of impasse, there are a couple of key ideas you should understand.

First, the two types of project crises are almost always born of the same underlying condition. The missed deadlines and busted budgets are usually not merely the result of underestimation. They are frequently the early warning signs of strained relationships. And the anxiety of the missed deadlines further burdens those relationships.

Second, the hurt feelings that accompany the second stage of revelation are perfectly normal. They result from violated expectations about what will be done, how and when it will happen, how people will relate to one another and what common values will be held.

The problem isn't that expectations are violated over the course of projects; it's that we believe that they shouldn't be. But expectations are always violated. It is inevitable. Projects all start in ignorance and confusion and are completed in the relative clarity of hindsight. The process of completing projects is the process of learning. As we learn, assumptions change and feelings get hurt.

If you want to avoid calling me for a crisis intervention (not that I mind), think about the human issues, the mutual expectations and their violations at the first sign of trouble, rather than waiting until ill feelings become entrenched problems. ▸

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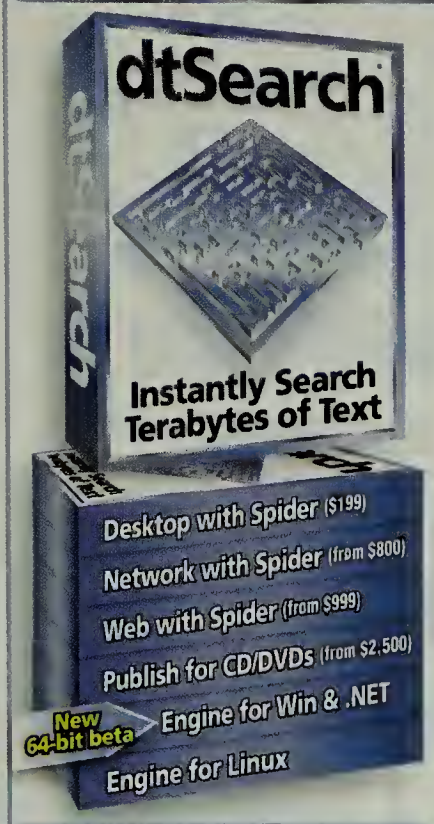

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Symantec

lems than they are about the effects they're seeing: a licensing logjam on the new Backup Exec IId release and slow responses when it comes to customer support.

Scott Ladewig, manager of networking and operations at the John M. Olin School of Business at Washington University in St. Louis, said that he has been waiting three weeks for an upgrade to Backup Exec IId.

"According to customer support, they have thousands and thousands of [software upgrade] invitations being held because the merger of Veritas licensing with their own has been such a disaster," Ladewig said. "It seems to be a huge fiasco."

Thompson said the new licensing system provides a unified process for registering Symantec and Veritas users and assigning them identity keys. The two companies had different approaches before, he noted. For example, Backup Exec users "didn't have to register and tell us where the product was being used," Thompson explained. Now, he said, "we're dealing with hundreds of thousands of users here that need to get licensing keys and register."

Pacing Itself

Because of the number of customers involved, Symantec has been slowly meting out new license notifications to users of the Veritas backup software — sending about 20,000 at a time.

"We'll have all those batches sent out to clients by mid-February," Thompson said. "If a client wanted to see one earlier, we could probably facilitate that one client receiving it earlier."

Symantec has posted a message on its new licensing portal notifying customers that because of the high volume of inquiries, it will take five to seven business days to respond to requests for upgrades to Backup Exec IId, which was released last month.

Thompson said Symantec officials weighed the idea of delaying IId's release but decided that they wanted users to experience the benefits of the combined licensing portal and the new ability to interact with Symantec and Veritas as one company.

"We did add significant staff to our support lines to make sure we could handle the call volumes for year-end and also the changes in process and upgrades," Thompson said. "It does sound like some customers are experiencing some waits that are longer than normal. I can see how some customers would not be happy, and we're addressing that head-on."

> **If the [Veritas/Symantec] merger is helping me as a customer, I haven't seen it.**
>
> **SCOTT LADEWIG,** IT MANAGER, WASHINGTON UNIVERSITY, ST. LOUIS

Cris Paden, a Symantec spokesman, said more information will be released in the next few weeks about the software piracy rings, which he said are costing the company sales that amount to "eight figures" annually.

The problems in transitioning customers through the new licensing process are "minimal [compared with] what our support people would endure if they were having to deal with customers using counterfeit versions of Backup Exec," Paden added. "It's a growing problem that we're trying to head off at the pass."

Support Concerns

But Symantec's support problems don't appear to be limited to the Veritas software.

John Halamka, CIO at Harvard Medical School and CareGroup Healthcare System, both of which are based in Boston, said Symantec recently forgot to send his office a license-renewal reminder for his Brightmail Anti-Spam application. There was "a lapse in coverage of a few days that caused us to scramble," Halamka said.

Chris Varner, chief technology officer at DDJ Capital Management LLC in Wellesley, Mass., said he had to call tech support at Symantec three times last week before he finally got an answer regarding a problem with his spam-filtering software, which had stopped working.

"On three different phone calls with three different tech-support reps, we got three different answers," Varner said.

Ladewig said that instead of just being able to view information about his Veritas licenses when he logs into Symantec's online portal, he now sees licenses for every department at Washington University — but not all of his own data.

"I see some of my stuff, and other stuff still isn't there," Ladewig said. "If the merger is helping me as a customer, I haven't seen it." ▸

Symantec Licensing Changes Cause Customer Angst

CIO Thompson says impact on users is 'unfortunate,' but points to benefits

BY LUCAS MEARIAN

Symantec CIO **David Thompson** *spoke with* Computerworld *last week about the company's new unified online licensing system and the upgrade delays and customer support problems that some users are facing. Excerpts from the interview follow:*

Backup Exec users say there's a logjam in getting their upgrades to the 11d release because of the launch of the combined Symantec and Veritas licensing portal. What's going on? The current feedback we're getting from clients is there have been some challenges around a very small subset of our customer base that are previous Veritas clients who use the Backup Exec product. As part of our new release and [licensing] process, we're now asking all of our clients to register and also to obtain their license keys through that registration process.

One other reason we consolidated our licensing process was to mitigate and reduce our exposure to software piracy. We've had some challenges with that in certain regions. The consolidated licensing model is one way to ensure that the client who purchased the product is the client who's using the product.

I'm also hearing from users that there are really long waits when it comes to getting technical support. Have you had to put more of your manpower into the merger with Veritas than in servicing customers? There are three specific things happening at once. One, it's year's end, and a lot of clients are doing a lot of work, and we typically see a high call volume near the year's end and around the holidays.

The [second] thing is that as we were deploying these new capabilities to the licensing portal, we realized there was going to be some noise within our customer base as we implemented these new processes. So we were expecting a higher call volume related to customers learning the new licensing process.

The third thing, and this is the thing you're homing in on, is that the Backup Exec IId upgrade hit right around the same time. If we'd sent out those upgrade notices all at once, we would have had a tremendous amount of change occurring in our customer base. So we've been sending those out [in stages] and will have them completed by the end of February.

> **"It's not a performance issue with the new system [or] with our support group; it's just a volume of change occurring all at once."**
>
> **DAVID THOMPSON,** CIO, SYMANTEC CORP.

Is the need for the staged approach related to the process of distributing the license upgrade notices, or to the rollout of the new licensing portal itself? In the past, the customers who received these [upgrade notices] were immediately able to use the product, but now they're being asked to register and obtain the keys. So customers are interacting with a new process.

It's not a performance issue with the new system, and it's not a performance issue that I can see at this point in time with our support group; it's just a volume of change occurring all at once. It's unfortunate that customers are impacted here, but I think the benefits are pretty good for them. And in the end, hopefully we'll reduce piracy. ▸

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FRANK HAYES ■ FRANKLY SPEAKING

Vet All Code

NO ONE KNOWS what's in software that's developed overseas. It might have trapdoors, time bombs or other malicious code put there by saboteurs. And that has a Department of Defense task force worried. "There are very clever things that can be done," says task force chairman Robert Lucky. "And we're talking about complexity that boggles the mind. It's so enormous that no one can truly understand a program with millions of lines of source code."

Should we trust offshore software developers not to sabotage the code they write for the Defense Department? Of course not.

Trust isn't the issue. We need to verify that the software does what we want and nothing more — no matter where it comes from.

As *Computerworld*'s Gary Anthes reported last week, the task force is scheduled to issue its report early next year on the risks of military-use software that's developed outside the U.S. According to Lucky, the group's recommendations won't include banning offshore development of military systems. They *will* call for beefing up inspections and tests of such code.

That's great, no doubt. But it dodges a bigger question: Why does the Pentagon accept software from *any* supplier, foreign or domestic, that the DOD can't adequately review and verify?

If software is too complex for Pentagon reviewers to understand, why should anyone believe that the programmers got it right, much less trust that it's free of malicious code?

After all, that's the real problem. That mind-boggling complexity in multimillion-line piles of code doesn't just offer hiding places for saboteurs. It also hides unintentional security holes, as well as other bugs that could surface in unexpected and — in war-fighting software — literally fatal ways.

And that's not acceptable. Some software projects, by their nature, have to be huge. But they don't have to be incomprehensible.

That problem was cracked 30 years ago, and the solution has been refined ever since: Break projects down into parts for small teams to implement. Design in the form of testable modules. Keep breaking the modules down to smaller modules. Prototype. Get it working. Test. Integrate. Refactor. Repeat as you scale it up.

Yes, it's a lot harder than that makes it sound. And the result is still a big pile of code with plenty of complexity. But the code is in modules that can be understood. It's a big pile of little parts that can be properly reviewed and verified, not just tested for functionality and taken on trust for quality and security.

If the DOD wants to spot sabotage in the software that contractors write for it, that's the kind of code the DOD must demand.

Will it cost more? Yes — for the greater effort in development and the time and expertise required to vet the code.

More than that, it will require some wrenching adjustments to how the DOD farms out software development. Verifiable software development doesn't match up well with today's defense procurement practices. Politicians, Pentagon bureaucrats and defense contractors all have a stake in huge projects that are too complex to judge, so they're impossible to kill.

Changing that culture is a lot to ask of one task force. It may be impossible. But Lucky and his group have to try.

The alternative is for the DOD to keep contracting for ever more complex software projects that fail ever more frequently and face the added risk of sabotage from offshore developers — all the while trusting that, even though no one at the DOD can figure out the code, the coders know what they're doing.

That kind of trust is a fantasy — and a recipe for disaster.

The reality is that the best way — the only way — to protect Pentagon software from offshore contractors injecting malicious code is to make the code understandable, reviewable and testable.

There's no other choice.

Anything else is sabotage waiting to happen.

FRANK HAYES, *Computerworld*'s senior news columnist, has covered IT for more than 20 years. Contact him at **frank_hayes@computerworld.com.**

But It *Did* Kill That Spam

Spam is heavy at this mortgage company, so a consultant is brought in. He reviews six months of accumulated spam, designs a filter and sets up an antispam appliance that should kill 98% of the junk. Everyone's happy. Then it goes live. "On the first day, there's no spam, but the company's business has evaporated," says a pilot fish on the scene. "They didn't receive a single mortgage loan closing document. On the second day, minimal spam, no orders and very, very loud customer complaints." Turns out that 35% of the spam samples were for mortgage companies, so "mortgage" was one of the keywords used to filter out spam. Sighs fish, "The system was fixed, so they now get both their orders and mortgage spam."

SHARK TANK

No, Not That UPS

Insurance company's data center is moving to a new building, and this pilot fish is explaining to a meeting of senior execs that IT is about to relocate the UPS to the new location, so there will be no UPS protection until the move to the new data center is complete. Fortunately, power has been very stable, so the chance of an outage is small. But one VP is still worried. "Wait a minute," he says. "We ship almost everything by UPS. Won't this affect our service?"

Why Change What Works?

Support pilot fish isn't usually on call, but this time she gets beeped at 4:30 Saturday morning. What's wrong? asks fish when she returns the call. "The overnight jobs didn't finish," data center operator says. Suddenly, fish is fully awake. Did something happen? How much extra time is it taking? she asks. "Oh, it always runs over on Friday and Saturday nights," user says. "But the instructions say to beep the on-call if it doesn't finish by 4:30." What time does it usually finish? "Around 6." All right, fish says, please make a note on the op instructions *not* to call me tomorrow unless it doesn't finish by 6.

Power Play

This sysadmin pilot fish has a decade of experience, so he figures he shouldn't have trouble setting up a very high-end server for a rush job. But he can't get it to power up – the switch just does nothing. Suspecting faulty power, he calls in an electrician. "The electrician came and verified power with an ammeter," says fish. "He then flipped the switch on the far side of the power supply, and the machine came on. I had been flipping the system switch because I had no idea the power supply switch was there. The electrician promised he wouldn't embellish the story too much."

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